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APR 16 1917

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner

MONTHLY REVIEW

OF THE

U. S. BUREAU OF LABOR STATISTICS

VOLUME IV—APRIL, 1917—NUMBER 4



WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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COMPULSORY HEALTH INSURANCE PROPOSED BY SOCIAL INSURANCE COMMISSION OF CALIFORNIA.¹

The report of the Social Insurance Commission of California to the legislature of 1917 is a sweeping indorsement of practically the whole program of social insurance—health, unemployment, old age, invalidity—as “a practical and effective means of counteracting at least some of the harmful results of modern industrial conditions upon the well-being of the wage earners.” Compulsory health insurance is urged as the most logical first step in such a program (next to accident compensation which has already been adopted by the State), and the attention of the report is largely concentrated upon this subject.

The commission was created by an act of 1915, following a period in which unemployment and destitution in the State had been particularly acute. Its duties were to investigate “the various systems of social insurance” in use or proposed in other States and in foreign countries and to report its findings to the legislature, together with an estimate of the cost of any system it might recommend.

The creation of such a commission was in itself a noteworthy incident. As is generally known, the principle of social insurance, so widely applied in Europe, has been accepted in this country only in the case of accident compensation, laws on this subject being now in operation in 35 States. The so-called mothers' pensions laws, now in force in a number of States, represent a somewhat analogous idea, but are really public pensions and not insurance. Of other forms of social insurance most consideration has been given to those con-

¹ Report of the California Social Insurance Commission, Jan. 25, 1917. Sacramento, 1917. 329 pp. The commission of five members appointed by the governor consisted of the following: Paul Herriott, chairman (succeeding John F. Neylan, resigned), Katherine C. Felton, Dr. Flora W. Smith, Mrs. Frances N. Noel, and George H. Dunlop. The members were unpaid, but the sum of \$20,000 was allowed for expenses.

cerning old age and unemployment. Old-age insurance has been the subject of official investigations by a few States, notably Massachusetts and Wisconsin, and unemployment insurance has been reported on by the Immigration and Housing Commission of California and by a special commission in Massachusetts. But up to 1917 the only State commissions appointed to investigate the subject of health insurance and also of social insurance in its various phases were those of California (1915) and of Massachusetts (1916). Both of these have submitted reports to the 1917 legislature of their respective States. A summary of the California report is presented below.

ATTITUDE OF COMMISSION TOWARD SOCIAL INSURANCE IN GENERAL.

The commission is convinced that social insurance in general is practicable and desirable. It did not attempt original inquiries regarding the success of such insurance in foreign countries, but from the information collected it is led to the following opinions:

(1) Social insurance in its various branches represents a world-wide movement which embraces not only all of Europe but a large portion of the British Empire, and has made its beginnings in Asia and America. It is at the present one of the most important movements in modern social and labor legislation. All modern civilized and industrial countries have some social insurance legislation in force. The most important and progressive foreign countries also possess the most comprehensive social insurance systems.

(2) Social insurance methods represent a practical and effective means of counteracting at least some of the harmful results of modern industrial conditions upon the well-being of wage earners, and especially of preserving those persons who for some reason or other cease being independent producers either temporarily or permanently.

(3) While no country in the world has as yet succeeded in abolishing poverty or even destitution and the need for charitable relief, much has been accomplished toward that goal in several countries by means of the existing social insurance systems.

(4) In addition to this relief of destitution, social insurance has proved to be a powerful factor for the preservation of life and health, through the "safety first" movement, through improved care of the sick and invalids, and through regularization of employment. In several countries the increased span of life and improved health conditions are largely ascribed to the influence of social insurance institutions.

(5) The success of the social insurance institutions appears to be largely dependent upon their compulsory character. Both in the number of the persons protected and in the quality of service rendered compulsory insurance systems appear to be vastly superior to the voluntary ones.

(6) Different racial and national conditions and different political organization seem to have had little effect upon the existence and extension of social insurance institutions in various countries.

(7) Next to compensation for industrial accident, compulsory health insurance is the most highly developed form of social insurance in Europe, and it has followed accident compensation in several countries as the next step in the extension of social insurance.

FINDINGS REGARDING HEALTH CONDITIONS IN CALIFORNIA.

The commission devoted most of its attention to investigations of conditions in California, with particular reference to the subject of health. Its object was to ascertain the amount and burden of sickness among wage earners, their ability to carry the burden, the provisions offered by public hospitals, clinics, and dispensaries, and the success of private voluntary insurance methods, such as trade-unions, fraternal orders, and insurance companies in meeting the existing needs. As a result of these studies, the commission came to the following conclusions:

(1) While the rate of weekly wage is higher in California than in Eastern States, the earning power of the majority of the wageworkers is not sufficiently high to enable them to go through an attack of serious illness without a very grave hazard to their economic well-being. The loss of earnings through unemployment is very large, thus materially affecting the annual income.

[It is noted elsewhere in the report that available wage statistics indicate that over 10 per cent of the adult males in manufacturing industries receive less than \$12 per week and some 60 per cent less than \$18 per week. Of women in all occupations 20 per cent receive less than \$7 per week and 74 per cent less than \$12 per week. These figures take no account of loss through unemployment. For an average family of five it is estimated that the minimum cost of food and shelter alone is not less than \$12 per week.]

(2) The expenses of treatment of the sick are heavy in California, as they are throughout the Pacific coast, and considerably heavier than in other parts of the country. The commission has no intention of criticizing the charges made by the medical profession for its services. Comparison of the standards of payment for medical services with the incomes of the large proportion of the wageworkers leads to the conclusion that medical aid at the ordinary rate of payment is not within the means of a large number of wageworkers.

The cost of private hospital service is beyond the reach of the paying capacities of most wageworkers, and, with the exception of a very few county hospitals and a few private hospitals to which free patients are admitted, the available beds in the ordinary county hospitals offer facilities which are recognized by the proper authorities to be unsatisfactory and are not acceptable to the large number of wageworkers. As a result free hospital facilities are decidedly inadequate. In comparison with the standard of five hospital beds per thousand of population, California has only one free hospital bed per thousand.

As a result of these conditions the commission finds there is a rapid increase in the use of free clinics, lodge practice of medicine, mutual hospital associations and commercial hospital associations, patronized largely by wageworkers.

(3) In investigating the relief work which charitable organizations, public and private, are called upon to perform sickness was found to be the largest single cause of dependency.

(4) Despite the hardship which illness brings to the individual wage earner investigations disclosed the fact that California has a comparatively low sickness rate—an average of six days per person is lost each year because of sickness.

(5) A full investigation of the existing insurance facilities shows conclusively that health insurance is an institution with which the people of California, and especially its working men and working women, are familiar

through fraternal orders, benefit societies, trade-unions, and to some extent through commercial insurance companies.

Probably not more than one-third of California wageworkers have voluntarily insured themselves against the hazard of sickness, and these voluntary efforts reach only an extremely small proportion of the people who need it most. In most cases the entire financial burden is placed upon the wageworkers themselves, and therefore the funds collected are usually inadequate to provide support during illness and scientific medical care. This is particularly true of medical and hospital services furnished, except in a very few large corporations.

(6) As a result of these findings, the commission has arrived at the conclusion that legislative provision for a State-wide system of compulsory health insurance for wageworkers and other persons of small incomes would offer a very powerful remedy for the problem of sickness and dependency in the State of California.

(7) In selecting health insurance as the particular branch of social insurance best adapted for earliest action, the commission was guided by the following conditions: (a) Health insurance appears logically to be the next step in development after accident compensation. (b) It offers the least actuarial and organizational difficulties as compared with other more complicated branches of social insurance which require provision of substantial reserves. (c) While the grave character of the problem of unemployment can not be denied, no system of unemployment insurance in California would appear practicable until further measures are taken to reduce the amount of unemployment. Moreover, unemployment insurance is a comparatively new institution with a very limited amount of experience available at present. (d) Old-age insurance presents such serious actuarial and financial problems that the commission does not feel in a position to make any recommendation concerning it at this time. Further study of the problem, especially as to the comparative merits of the methods of compulsory insurance and straight old-age pensions, would be required. (e) It is claimed, and with some justice, that in both the field of old age and unemployment insurance national action may be necessary, while the problem of dependency due to sickness is largely a local problem amenable to State action.

RECOMMENDATIONS OF THE COMMISSION.

The commission does not submit in final form its opinions as to the details of the system which it recommends in principle. It urges that such an important subject deserves wide consideration by the people of the State. Moreover, an amendment to the State constitution would probably be necessary before a compulsory health-insurance system could be adopted, and this the commission thinks desirable, as it would bring the matter to popular attention and lead to valuable criticisms and suggestions.

But, while the commission does not attempt to frame even a tentative draft of a bill, it does take occasion to sketch in a broad way certain opinions it has formed as to the essential features of a health-insurance system for California. In so doing it points out what it considers to be certain fundamental difficulties in the bill proposed by the American Association for Labor Legislation and suggests measures by which it believes these difficulties can be avoided.

OBJECTIONS TO THE STANDARD HEALTH INSURANCE BILL OF THE AMERICAN ASSOCIATION FOR LABOR LEGISLATION.

The objections which the commission offers to the bill of the American Association for Labor Legislation are expressed in the following language:

1. The commission believes that unions, fraternal societies, and other voluntary organizations now engaged in health insurance should be given a place under a State system and should be encouraged to continue and develop their activities; that the compulsory system should not drive out the voluntary, nor substitute purely formal units of organization for associations in which men are bound together by ties of friendship, loyalty, and mutual interest. The plan suggested in the bill of the American Association for Labor Legislation places voluntary societies at such a competitive disadvantage as practically to bar them out from any participation in health insurance; for while insurance in these societies is permitted in lieu of other forms of compulsory insurance they do not receive the employers' contribution, which amounts to from 33½ to 40 per cent of the entire insurance premium. Thus these societies are placed at a competitive disadvantage so great as to be disastrous. Few of their members will continue to insure with them when they can save one-third of the premium by insuring elsewhere.

2. Knowing the many difficulties and complexities of its own with which health insurance must grapple, the commission favors a form of organization which does not force employers and employed to join in the administration of the system, and for this reason opposes the plan proposed by the American Association for Labor Legislation, which places the immediate local control of health insurance in the hands of district mutual associations governed jointly by the employers and employed. Under such a system the commission fears that with the administration in the hands of representatives of these two groups there would be a likelihood of deadlocks on disputed issues.

3. The commission believes that the success of health insurance will depend largely upon the efficiency of its management and, therefore, upon the ability and integrity of those selected for executive and administrative positions. The commission is, therefore, opposed to the plan of organization suggested in the bill under discussion, because the method which it provides for selecting those who are to administer the health insurance system gives no assurance that persons of special fitness or ability will be chosen. For while the plan under consideration provides for a State insurance commission appointed by the governor, the duties of this commission are largely supervisory and judicial. The direct administration of health insurance is intrusted to local mutual associations, to which all the employed, subject to the system and not otherwise insured, and their employers belong.

Employed and employers meet separately and elect representatives to a central committee. The representatives so chosen elect an equal number of directors. These directors, chosen jointly by employers and employed, constitute the governing body of the local fund.

Under this system a new electorate is created. So far, at least, as the insured are concerned, it is made up of persons who are practically strangers to each other. Union and nonunion, skilled and unskilled, come together simply for the purpose of this single election. Political experience suggests the result to be expected from such a system of election.

SUGGESTIONS AS TO CHARACTER OF SYSTEM.

In place of the methods objected to above the commission proposes a system of health insurance in which cash and medical benefits should be entirely separated and in which the form of administration should conform to the present organization of industrial accident insurance in the State. The proposed system is sketched in the report, as follows:

Its central features are the separation of cash and medical benefits and the provision that the insured shall pay the entire cost of the cash benefit. Under such a system it obviously becomes a simple matter to provide that the workman who pays the entire cost of his money benefit may insure in any fraternal organization, union, or voluntary society which he may select, provided that such organization has been approved by the State as financially sound.

A State fund for carrying cash benefits will also be established as part of the system, so that if the workman does not care to insure with a voluntary organization he may insure with the State. In either case he pays the entire cost of the insurance secured. Under this arrangement the State fund carrying cash benefits receives no subsidy from employers or from the State. Fraternal organizations and other voluntary societies are, therefore, not placed in a position of competitive disadvantage in relation to it.

The State fund should set a rate fully covering all cost of administration, but allowing for no profit. This would become the standard rate, checking possible waste or inefficiency on the part of private societies.

While under this system the insured pay the entire cost of the money benefit and select their own insurance carriers, the contributions of employers and of the State are paid directly into the State fund and are used primarily to meet the cost of the medical benefit. The administration of this fund and the organization for medical aid will be vested in a State insurance commission which is also made responsible for the administration of the entire health insurance system. This commission is to be composed of full-time salaried members appointed by the governor. The employer, the insured, the medical profession, and probably the public should be represented on it. This plan of organization corresponds closely to the industrial accident commission, which administers the system as a whole, and which also controls and administers an insurance fund which is in competition with other funds.

Under the administration of industrial accident insurance the employer pays the entire premium and therefore there is no necessity for the separation of cash and medical benefits. Under health insurance, where there may be necessity for such separation, the administration of the medical benefit is centered in the State. The State health insurance fund, under this system, therefore becomes (1) the sole and only carrier of medical benefits;¹ (2) one but not the sole carrier of cash benefits.

While under this system employers and employed are not arbitrarily brought together in the administration of health insurance they should be allowed to come together in establishment and trade funds when both employers and employed desire to do so. In such cases the employers' contributions should be paid to the fund and not to the State. The fund should be allowed considerable freedom in the organization of medical aid. By allowing the voluntary organization of these trade and establishment funds, all the benefits and none of the

¹ Except as trade and establishment funds are allowed to carry their own medical benefits.

disadvantages of joint administration by employers and employed are secured, and the administration of the system is made more elastic and flexible.

In order to simplify the statement of the plan only two principal benefits have been referred to, namely, the cash and the medical. There are, of course, other subsidiary benefits the cost of which should be apportioned by the insurance commission between the insured, the employers, and the State, so that each bears the approximate proportion of the entire cost assigned to it. If this plan is adopted the act should specify approximately and not absolutely the proportion of cost to be borne by the three contributors.

According to the estimate of cost made by Dr. Rubinow and others the cash benefit will probably range between 33½ and 37½ per cent of the entire cost of the prescribed benefit. Any of the various plans suggested require the insured to pay at least 40 per cent of the entire cost of the insurance. It is therefore reasonable to suppose that the insured can always pay the entire cost of the cash benefit and in addition the cost of some other subsidiary benefits.

According to Dr. Rubinow's estimate the cost of medical care for the insured and his family may be expected to range between 33½ and 39 per cent of the entire cost of the prescribed benefits. Under any of the systems this will be less than the proportion of cost assigned to the employers and the State, while under the bill prepared by the American Association for Labor Legislation the employers alone are required to pay 40 per cent of the entire cost. It seems reasonable then to expect that the contributions of the employers and the State will always suffice to meet at least the entire cost of medical aid.

Under this system the organization of medical aid will be in charge of the commission itself, which will, after conference with the physicians, fix the rate of compensation for their services, and which will appoint a medical director, who will be in charge of a corps of district medical inspectors. These inspectors will be in charge of the work in the various districts established for administrative purposes.

In each district a panel of physicians will be established and organized under the direction and supervision of the district medical inspector. Under a system of free choice, which will probably be the one established in California, all licensed physicians willing to accept the compensation fixed by the commission and to abide by the committee's regulations may register on the panel, and the insured may choose from any of the physicians so registered.

It can not be urged against the system here suggested that it fails to protect the employers' interests, for the employers will have representation on the commission which will appoint the medical director and determine the rate of compensation to be given to physicians. The cost of medical care will depend upon the rate of compensation so fixed and the efficiency of the supervision exercised by the medical inspectors. Employers will also be represented on a central advisory committee appointed to work with the commission and any district advisory committees working with the district medical officers. Again, the employers' interest is automatically protected by the insured themselves in their unions and fraternal organizations who control the administration of the cash benefit, for men do not malinger to get more attention from the doctors but to secure the cash benefits. The insured, paying the entire cost of the cash benefit, will have direct interest in preventing malingering, and in so doing will automatically hold down the cost of medical service.

The plan of organization which is suggested here is supported by the best political experience we have. In a democracy the greatest possible efficiency of administration is secured by giving the governor a wide appointive power and holding him strictly responsible for the result. This policy has been followed in recent years in California, and the marked efficiency of the industrial

accident commission and the railroad commission stands out in confirmation of this theory. As health insurance will directly affect some 2,000,000 people in the State, no governor will risk inefficient administration of the system, as it would probably wreck his career as executive. Therefore we may reasonably expect that great care will be exercised in the selection of the insurance commission, and the commission in turn will use the same care in the selection of its executive officers.

It can not be fairly urged that in the interest of efficiency this plan sacrifices local interest and tends to establish a bureaucratic and centralized system—first, because in the medical administration it provides for local advisory boards and the free choice of physicians, thus bringing into the system the majority of the medical profession; secondly, in the administration of the cash benefit it accepts as funds, lodges, fraternals, unions, etc., and so brings into the administration of the system many local organizations and forces the State fund to enter into competition with them.

In conclusion the commission does not wish its purpose misunderstood. It is not, at this time, prepared to offer a plan for the organization of health insurance. It sees what it believes to be serious objections to the plan of the American Association for Labor Legislation, which has been given the greatest publicity. It believes that these objections can be obviated through other forms of organization. In briefest outline it sketches a plan of organization which it believes free from these objections. This plan may, however, be open to objections still more grave. It is submitted at this time simply for the purpose of study and debate.

ESTIMATES OF COST OF HEALTH-INSURANCE SYSTEM.

In attempting to estimate the probable cost of a health-insurance system for the State of California the commission was handicapped by the lack of precise information regarding most of the basic factors of cost. The conclusions arrived at, therefore, are recognized as not scientifically accurate, but they are offered as probably sufficiently dependable to serve as a basis for preliminary computations.

The necessary basic factors are estimated as follows:

1. Total number of wage earners in California possibly subject to the act, 995,000. This number is estimated from occupation statistics of the United States Census of 1910, with a loading of 25 per cent to allow for the increase from 1910 to 1917.
2. The total weekly pay-roll expense is estimated at \$17,146,000. This is based upon somewhat fragmentary data from various State and Federal reports.
3. The sick rate among wage earners in the State is estimated at six days per person per year. This is based on such limited material as was available regarding the sickness expenses of lodges and trade-unions, checked against certain foreign experience. It was impossible to make separate estimates for sex or occupation.
4. The cost of medical aid alone is estimated at \$4 per annum per person insured. This is an extremely rough estimate, but is believed to be ample, being twice the amount granted under the British system and some four times as large as the amount paid by the Leipzig fund.

In addition to medical aid, hospital care would average about \$2 per annum per capita, and drugs an equal amount. Dental care could be added for perhaps \$1 per annum.

5. The costs of other forms of benefit which an insurance system might offer, such as maternity and funeral benefits, and sanitorium treatment for tuberculosis may be estimated with reasonable accuracy from available statistics.

With these basic factors of cost estimated in the manner suggested above the commission works out various computations as to the cost of a compulsory insurance system paying cash benefits of two-thirds of the weekly wages, with a maximum of \$15 per week, and covering a total wage-earning population of 995,000.

The following table, reproduced from the report, shows the estimates of net cost, by character of benefit and by industrial groups. This statement contains no loading for expense and assumes that every one under insurance is fully covered through the entire year. The cost of medical aid is assumed at \$4 per capita, but parallel computation is made on the assumption of a \$6 per capita for medical aid.

ESTIMATED NET COST OF INSURANCE, BY CHARACTER OF BENEFIT AND BY INDUSTRIAL GROUPS.

Kind of benefit.	Manufacturing, building, mining, transpor- tation.	Commer- cial, clerical.	Profes- sional and public service.	Domestic, agricul- tural, mis- cellaneous.	Total.
Insured persons:					
1. Weekly benefit ($\frac{2}{3}$ wages).....	\$4,838,000	\$2,087,000	\$605,000	\$1,668,000	\$9,198,000
2. Maternity:					
Cash.....	18,000	51,000	36,000	43,000	148,000
Obstetrics.....	9,000	22,000	12,000	21,000	64,000
3. Funeral.....	371,000	152,000	31,000	169,000	723,000
4. Medical (\$4).....	1,884,000	904,000	216,000	976,000	3,980,000
5. Hospital.....	942,000	452,000	108,000	488,000	1,990,000
6. Drugs.....	942,000	452,000	108,000	488,000	1,990,000
7. Dental.....	471,000	226,000	54,000	244,000	995,000
8. Tuberculosis.....	930,000	381,000	80,000	295,000	1,686,000
Total.....	10,405,000	4,727,000	1,250,000	4,392,000	20,774,000
Deduct—					
Cost for hospital ¹	592,000	261,000	79,000	210,000	1,142,000
First week's cash ²	1,210,000	522,000	151,000	417,000	2,300,000
Total deduction.....	1,802,000	783,000	230,000	627,000	3,442,000
Net (insured).....	8,603,000	3,944,000	1,020,000	3,765,000	17,332,000
Family:					
1. Medical.....	2,009,000	822,000	170,000	918,000	3,919,000
2. Hospital.....	1,004,000	411,000	85,000	460,000	1,960,000
3. Funeral.....	364,000	149,000	31,000	167,000	711,000
4. Maternity.....	494,000	180,000	33,000	207,000	914,000
Total (family).....	3,871,000	1,562,000	319,000	1,752,000	7,504,000
Total cost.....	12,474,000	5,506,000	1,339,000	5,517,000	24,836,000
Cost (medical, \$6):					
With family.....	14,419,000	6,369,000	1,532,000	6,460,000	28,780,000
Without family.....	9,545,000	4,396,000	1,128,000	4,253,000	19,322,000

¹ In making this computation it is assumed that a single person in hospital will require no cash benefit and a person with dependents only one-half the usual cash benefit.

² Estimated saving in cash benefits which would result from a one week's waiting period.

Briefly, this table shows that for all groups of wage earners the net cost, including the benefits for the insured, as well as a fairly comprehensive scheme of medical benefits for the family, will amount to \$24,836,000, and without the benefits to the family, \$17,332,000. On an assumption of \$6 per capita for medical aid, the total would be \$28,780,000, including the family, and \$19,322,000 not including the family. The reduction in cost which would follow the exclusion of domestic service and agriculture or of other industrial groups can be readily calculated from the figures given.

In the next table the total net costs for the several benefits (on a \$4 per capita medical aid basis) are reduced to terms of per capita insured and per cent of wages. Also calculation is made as to the cost added by administration expenses, figured as 10 per cent of gross costs, and a further loading of 7½ per cent is made for "extended insurance," i. e., to protect the wage earner against arrears in his weekly payments. A 7½ per cent loading, it is estimated, will allow one week's extension in every five. Some such extension is necessary to prevent injustice and to protect workers in those trades having long periods of unemployment.

ESTIMATED COST PER CAPITA AND PER CENT OF WAGES, WITH LOADING FOR ARREARS AND EXPENSES.

Kind of benefit.	Total cost.	Annual cost per capita.	Weekly cost.	Weekly cost with 7.5 per cent loading for extended insurance.	Cost in per cent of wages (no loading).	Cost in per cent of wages with loading 7.5 per cent.
Weekly benefit (½ wages).....	\$9,198,000	\$9.244	\$0.178	\$0.191	1.03	1.11
Maternity:						
Cash.....	148,000	.149	.003	.003	.02	.02
Obstetrics.....	64,000	.064	.001	.001	.01	.01
Funeral.....	723,000	.727	.014	.015	.08	.09
Medical (\$4).....	3,980,000	4.000	.077	.083	.45	.48
Hospital.....	1,990,000	2.000	.038	.041	.22	.24
Drugs.....	1,990,000	2.000	.038	.041	.22	.24
Dental.....	995,000	1.000	.019	.020	.11	.12
Tuberculosis.....	1,686,000	1.685	.033	.035	.19	.20
Total.....	20,774,000	20.878	.4015	.432	2.33	2.51
Deduct:						
Cost for hospital ¹	1,142,000	1.148	.022	.024	.13	.14
First week's cash ²	2,300,000	2.311	.044	.047	.26	.27
Total deduction.....	3,442,000	3.459	.067	.072	.39	.42
Family:						
Medical.....	3,919,000	3.939	.076	.082	.44	.48
Hospital.....	1,960,000	1.970	.038	.041	.22	.24
Funeral.....	711,000	.715	.014	.015	.08	.09
Maternity.....	914,000	.919	.018	.019	.10	.11
Total (family).....	7,504,000	7.542	.145	.156	.84	.91
Grand total.....	24,836,000	24.961	.480	.516	2.79	2.99
Administrative loading: ³						
Insured.....	1,926,000	1.936	.037	.040	.22	.23
Family.....	834,000	.838	.016	.017	.09	.10
Grand total cost.....	27,596,000	27.735	.533	.573	3.09	3.33

¹ It is assumed that a single person in hospital will require no cash benefit and a person with dependents only one-half the usual cash benefit.

² Estimated saving in cash benefits which would result from a one week's waiting period.

³ Estimated at 10 per cent of gross costs.

From these figures it appears that, if all benefits are allowed, the average annual cost per capita insured would be \$27.74, including administration expenses. This is equivalent to \$0.533 per week. With the further loading of $7\frac{1}{2}$ per cent for "extended insurance" the weekly cost would be increased to \$0.573, which would represent a cost of 3.33 per cent of total pay roll.

These two figures would be increased to \$0.655 per week and 3.80 per cent of pay roll if medical aid was raised to \$6. On the other hand the costs might be reduced by excluding certain of the less important benefits, such as dental aid, sanitarium treatment for tuberculosis, all benefits to the family of the insured, etc. The effect of such exclusion and substitutes upon estimated costs is shown in the following table:¹

COST PER CAPITA AND PER CENT OF WAGES WITH CERTAIN BENEFITS EXCLUDED.

Item.	Net cost.		Loading of $7\frac{1}{2}$ per cent for arrears.		Loading of $7\frac{1}{2}$ per cent for arrears and 10 per cent for administration.	
	Per week per member.	Per cent of wages.	Per week per member.	Per cent of wages.	Per week per member.	Per cent of wages.
Medical aid at \$6—						
Inclusive of family:						
All benefits.....	\$0.556	3.23	\$0.598	3.47	\$0.655	3.80
No dental.....	.537	3.12	.577	3.35	.634	3.68
No tuberculous.....	.524	3.04	.563	3.27	.620	3.60
No dental or tuberculosis.....	.505	2.93	.543	3.15	.600	3.48
Exclusive of family:						
All benefits.....	.373	2.17	.401	2.33	.441	2.56
No dental.....	.354	2.06	.381	2.21	.421	2.44
No tuberculosis.....	.341	1.99	.367	2.14	.407	2.37
No dental or tuberculosis.....	.322	1.87	.346	1.99	.386	2.22
Medical aid at \$4—						
Inclusive of family:						
All benefits.....	.480	2.79	.516	3.00	.573	3.33
No dental.....	.461	2.68	.496	2.88	.553	3.21
No tuberculosis.....	.447	2.60	.481	2.80	.538	3.13
No dental or tuberculosis.....	.428	2.49	.464	2.68	.521	3.01
Exclusive of family:						
All benefits.....	.335	1.94	.360	2.09	.400	2.32
No dental.....	.316	1.83	.340	1.97	.380	2.20
No tuberculosis.....	.302	1.76	.325	1.89	.365	2.12
No dental or tuberculosis.....	.283	1.64	.304	1.76	.344	1.99

As bearing upon the probable accuracy of these cost estimates the report notes that they are in close harmony with "the experience of the most efficient funds in Germany for which the cost has been recently running between 3 and 4 per cent."

COMMISSION TO STUDY HEALTH AND OLD-AGE INSURANCE IN OHIO.

The Legislature of Ohio, under date of March 10, 1917, enacted a law providing for the creation of a commission to study the subject

¹ This table is a summary of Tables IV, V, VI, VII, X, and XI of the report.

of health insurance and sickness prevention and of old-age insurance, and to submit to the next general assembly a full report of its work and findings. The act appropriates \$25,000 for the work of the commission. The text of the act is as follows:

SECTION 1. The governor be, and is hereby, authorized and directed to appoint, within 30 days after this bill becomes a law, a commission of seven members to conduct a study of the subject of health insurance and sickness prevention, and also of the subject of old-age insurance and of the application of health insurance and old-age insurance to Ohio conditions.

SEC. 2. It shall be the duty of such commission to make an inquiry into the subject of sickness and the causes thereof; the loss to individuals and to the public thereby; the adequacy of the present methods of treatment and care of such sickness, and of meeting the losses caused by such sickness by existing insurance companies or associations, or otherwise; and the influence of working and living conditions upon the health of employed and unemployed persons and methods for the prevention of such sickness, and other related subjects.

SEC. 3. It shall also be the duty of such commission to make an inquiry into the subject of old age in its relation to industry and to the public interest and of the adequacy of existing methods of caring for aged workers.

SEC. 4. The commission herein authorized to be appointed shall, within 30 days after its appointment, meet in Columbus and organize by the election of a chairman, and it shall submit to the eighty-third general assembly a full report of its work and findings on the subject of health insurance and sickness prevention, and also a full report of its work and findings on the subject of old-age insurance. Such commission, however, may issue partial reports on these subjects during the progress of its work.

SEC. 5. The members of such commission shall serve without compensation, except that each shall be entitled to his actual and necessary expenses incurred in the performance of his duties under the provisions of this act, including his necessary traveling expenses incurred in attending meetings or in performing other duties incidental to the work of the commission.

SEC. 6. Such commission shall have the power to employ and fix the compensation of a secretary and such investigators and other employees as may be necessary to carry out the purposes of this act. Such commission shall have the power to provide necessary office furniture, supplies, stationery, printed forms, books, periodicals, maps, and other furnishings and equipment necessary to the performance of their duties.

SEC. 7. The secretary, investigators, and other employees of such commission, in addition to the compensation herein provided for, shall be paid their necessary traveling expenses and other expenses necessarily incurred in the performance of their duties.

SEC. 8. The expenses incurred by such commission and the compensation and expenses of its secretaries, investigators, and other employees for the purposes specified herein, shall be paid from the State treasury upon the warrant of the auditor of state when the vouchers therefor have been duly signed by the chairman of such commission.

SEC. 9. Such commission and any subcommittee or member of such commission delegated to conduct hearings shall have power to administer oaths, issue subpoenas, and compel the attendance of witnesses within the county of their residence. In case of disobedience on the part of any person to comply with any proper order of the commission or any subpoena issued in behalf of such commission, or on refusal of any witness to testify concerning any matters regarding which he may be lawfully interrogated, the presiding officer shall make complaint thereof, in writing, to the probate judge of the county in which such witness resides, who shall issue a subpoena for the appearance of such person forthwith before him to give testimony. If any person so summoned fails to appear, or appearing refuses to testify, he shall be subject to like proceedings and penalties for contempt as witnesses in actions pending in the probate court.

SEC. 10. Such commission shall have free access to all public records necessary for the carrying out of the duties herein prescribed and suitable rooms shall be furnished to such commission either in the statehouse or in some other building.

SEC. 11. There is hereby appropriated out of any moneys in the State treasury to the credit of the general revenue fund, not otherwise appropriated, not to exceed the sum of \$25,000, to carry out the purposes of this act.

SOCIAL INSURANCE AND THE AMERICAN MEDICAL ASSOCIATION.

The council on health and public instruction of the American Medical Association has recently issued a series of five pamphlets on social insurance.¹ Pamphlet No. I deals with workmen's compensation legislation, describing in general the operation of these laws, their social and philosophic foundations, and what the trend at present seems to be in their relation to the medical profession. The report points out that the compensation laws recognize the fact that human wastage of industry, invalidism, and death should be classed in the same category as the wear and tear of other necessary means of production and should be paid for by the industry which produces the wastage. It then proceeds to trace the origin and growth of the various kinds of social insurance in Europe, including accident insurance, old-age insurance, sickness insurance, widow and orphan insurance, and maternity insurance, and notes the progress of workmen's compensation legislation in the United States. There is a brief analysis of the features of the various State laws showing wherein they differ. A table is presented showing the amount of compensation for death, permanent total disability, and temporary total disability (12 weeks) in the different States, also the maximum medical attendance allowed. Following this is a brief review of accident statistics in this country and in Europe.

The report discusses at length the relation that medical expenses paid by sickness-insurance societies bear to the total expense, and as illustrative of how the expenditure of the societies is divided a table is given showing the following result in Germany in 1907: Physicians, 23.11 per cent; medicines, 14.66 per cent; sickness benefit, 44.33 per cent; lying-in benefit, 2.01 per cent; death benefit, 2.6 per cent; hospital cost, 13.21 per cent; care of convalescents, 0.08 per cent.

The report undertakes to refute the charge that there is a general practice among surgeons working under compensation laws to overcharge. The suggestion is made that it is profitable to employers to hire high-priced surgeons, because it results in a reduction of compensation costs. Recognizing the importance of establishing just fees for industrial work, some of the State medical societies, it seems, have reached an agreement to this end with their industrial or compensation boards, thereby materially improving their mutual relations. A table is presented showing the fees which have been estab-

¹ No. I, Workmen's Compensation Laws, report of judicial council, 71 pp.; No. II, Social Insurance, report of special committee, 104 pp.; No. III, Health Insurance in Relation to the Public Dispensary, by I. M. Rubinow, 11 pp.; No. IV, Health Insurance in Relation to Public Health, by I. M. Rubinow, 12 pp.; No. V, Social Insurance, by I. M. Rubinow, 27 pp. American Medical Association, 535 North Dearborn Street, Chicago [1916].

lished in certain States, and the opinion among medical men appears to be generally favorable to this sort of an understanding.

Considerable space is given to a discussion of social insurance in its direct relation to the medical profession, which must necessarily be interested in the fact that 5 to 6 per cent of all workers will suffer each year from some form of accident, while sickness will annually affect 40 to 50 per cent of all wage earners. Of greater interest, however, from the medical standpoint is the struggle of the profession in Europe to obtain what they regard as adequate compensation in dealing with the various sickness-insurance systems, and the fact is cited that physicians there have organized to protect themselves against the practices of these societies. The most intense struggle appears to have been over the question of free choice of physician by the patient, the chief objection to this being the claim that the amount of medical remuneration was too severe a drain upon the sickness fund. In Germany the physicians' organizations reached an agreement with the sickness societies providing for the formation of contract committees, composed of representatives of the medical profession and of the insurance societies, free choice of physician within the list of the insurance societies, and arbitration courts, composed of representatives of the physicians and of the insurance societies, leaving the remuneration as a local issue. A similar fight in England resulted in the physicians partially gaining the rights for which they contended.

This matter is further discussed in pamphlet No. II, entitled "Social Insurance," which describes in some detail the systems in operation in Europe, with particular reference to England and Germany. This report, it is claimed, is not an argument for or against health insurance, but brings forward only those points which would seem to be of interest to the medical profession and which would be useful to them in preparing a study of the situation in any given State where health-insurance legislation is likely to be enacted. As to the relation of physicians to health-insurance laws and their remuneration under such laws, the report says:

Many difficulties of administration and many failures in administration have developed in both countries [Germany and England] through the employment of the capitation plan of remuneration to the physicians. In Germany this has resulted in bitter animosity between the medical profession and the insuring societies, and bitter contests for increased remuneration in which, in the enormous majority of contests, the physicians have won. In England it has resulted in inadequate care being given to the majority of the insured under the act. In this country it would seem to be useless to attempt to repeat the inherent faults of capitation payment, and medical opinion and customs in this country are already in vigorous antagonism to this form of contract practice. It would seem unwise, therefore, to start with the bitter antagonism of the medical profession against capitation. This would seem to force the necessity in this country of a remuneration based on the visitation system. With this

point of view clearly recognized, many difficulties experienced abroad will not occur, and, in fact, the chief stumbling block to the successful carrying out of the law is removed.

The effective administration of any health insurance law must be done through limitation by trade or geographic area of its application. This is clearly seen in the working abroad of the various laws in the different countries. The English law is difficult of administration because it violates this fact. Germany and Austria show marked effectiveness because their laws follow this peculiarity. Furthermore, the results obtained in working out the details of the law will be greatly influenced by the financial management of it. In Germany the percentage of expense borne by each member—the employer, the employee, and the State—is designated in percentage, the actual amounts necessary being left to experience and management to obtain. In England a definite monetary amount was laid down by law, and with the errors of actuarial calculation it has been found that these amounts are insufficient to give the desired results to the workers. Eighteen cents a week as a premium was insufficient to give a full measure of sick benefits to the workers or just remuneration to the physicians and medical benefits to the sick, let alone the expenses for administration. The English law fails to give more than the ordinary medical service and gives but a minimum of surgical apparatus and appliances, with the result that the sick do not receive the care they should, though the physician is justly remunerated, and the lack of proper appliances keeps many sick on the sick-benefit funds at the unnecessary expense of the insurance carriers. In Germany the generous application of medical benefit and surgical appliances brings back the tremendous saving in time and wages. As was pointed out by the judicial council last year, the expense of \$8,000 to specialists saved over \$160,000 in wages and sick benefits. However one may criticise the details, the insurance act has unquestionably improved the condition of the working classes which have come under the law.

Dr. I. M. Rubinow, in pamphlet No. III, *Health Insurance in Relation to the Public Dispensary*,¹ sees in the passage of such legislation in New York the following possibilities as affecting the status of dispensary practice:

1. The mass of the insured when freely furnished with medical aid on some basis or other but paid medical aid in any case will cease to apply to dispensaries or send their wives and children to them, so that at one stroke the necessity for dispensaries will not altogether vanish but substantially decrease.
2. A certain proportion of the insured and their families having acquired a dispensary habit, as it were, might continue to apply to you for medical aid, reasoning that in view of the presence of many specialists in your institutions the character of the medical aid furnished by you may be higher than that furnished through the paid organization.
3. The associations might want to make arrangements with your organizations for medical treatment on a paid basis either because they might expect to get it cheaper or because they might expect to get better service in this way.

The opinion is expressed "that free labor of a profession in such institutions is not a normal condition and surely would be still more abnormal under a health-insurance law, which must further deprive them of a certain share of private practice and which in its very nature provides remuneration for medical work." It is admitted,

¹ Paper read at the annual meeting of the Associated Out-Patient Clinics of the City of New York, Apr. 19, 1916.

however, that an out-patient clinic has some very definite technical advantages in facilities for treatment and the possibility of specialized attention which it is desirable to preserve for the benefit of those who can not pay high-priced specialists of consulting practice.

In pamphlet No. IV, on Health Insurance in Relation to Public Health,¹ Dr. Rubinow suggests the following ways in which health insurance may be expected to benefit the public health:

1. It will relieve misery and destitution and give a better chance for recovery.
2. It will give an opportunity for the patient to stay away from work when in the opinion of the physician rest is necessary.
3. It will lead to the proper organization of medical aid.
4. It may include not only the workman but his family as well.
5. Its provision for maternity benefits will prevent a large number of deaths on account of inefficient obstetric aid.
6. It will encourage the collection of sickness statistics so that the amount of sickness to be combated may be definitely known.

The general subject of social insurance as a remedy for human destitution and want is discussed by Dr. Rubinow in pamphlet No. V,² in which he outlines the principles underlying this form of insurance and declares that the people of this country are entitled to know why, with an infinitely lower wage level in Germany, there is less destitution there than in the United States. A portion of the pamphlet is devoted to a discussion of health insurance, showing how through a sickness-insurance fund a family in need may receive medical or hospital services and support during the extended illness of any member and thus prevent the exhaustion of any possible savings the family might have had at the beginning of the illness. The importance of including members of the family in the benefits of health insurance, and of providing for maternity insurance, was brought out.

SOME OBJECTIONS TO COMPULSORY HEALTH INSURANCE.

Although well established in many countries of Continental Europe and in England, the principles of health insurance have not yet been recognized in this country by legislative enactment. That there is considerable demand for this type of social insurance, which is intended primarily to be in the interests of the workingman, may be inferred from the fact that several State federations of labor, a

¹ Paper read before the section on preventive medicine and public health at the sixty-seventh annual session of the American Medical Association, Detroit, June, 1916.

² Lecture before summer school of University of California, Berkeley, July 10, 1916.

³ Further objections in addresses before the social insurance department of the National Civic Federation, in New York City, Jan. 22, 1917, are published in a pamphlet "Compulsory Health Insurance," received too late for this issue. These and certain addresses in favor of compulsory health insurance appearing in the American Labor Legislation Review for March, 1917, will be noted in the May issue.

number of international and local trade-unions, and individual leaders of labor, and also the industrial betterment committee of the National Association of Manufacturers,¹ and the Association of Manufacturers and Merchants of New York State have indorsed the movement. There is, however, some difference of opinion even among those who approve the principle generally as to making health insurance compulsory as proposed in a bill drafted by the American Association for Labor Legislation and presented to several of the State legislatures now in session. This bill, which has been defended by the association in its "Brief for Health Insurance," noted in the MONTHLY Review for October, 1916, page 472, would provide every beneficiary with medical or surgical service, medicines, nursing, and a cash benefit during illness amounting to two-thirds of his weekly wage for not to exceed 26 weeks, the cost to be met by contributions of one-fifth by the State and of two-fifths each by employers and employees. A maternity benefit is also provided.

The need for health insurance, according to Prof. Irving Fisher,¹ is twofold—the need of indemnity against loss, which is the essential of the insurance principle, and the need of diminishing the loss itself. Like education, it must be universal in order to function properly, and to be universal it must be obligatory. It provides insurance for those who need it most but who are unable because of poverty to pay for other forms of insurance. Its great virtue, however, says Prof. Fisher, will lie in the prevention of illness. "Health insurance will afford a very powerful stimulus to employers and employees and public men to take fuller and speedier advantage of possible health-safety devices." At the same time the cash benefits will give the workman a better chance for recovery, as well as more perfect recovery if attained. Aside from preventing disease and disability, health insurance, it is believed, will indirectly tend to reduce poverty and raise slightly the entire wage level, for "anything that raises the physical stamina of workmen increases their productivity and earning power."

It appears, however, that much opposition has developed to the principles of health insurance, and efforts are being made to prevent the enactment of such legislation. The Chamber of Commerce of the State of New York has vigorously protested against the health insurance bill now pending in the State legislature,² declaring that the bill contemplates the creation of a very large overhead charge

¹ Paper read before the Medical Society of the County of New York, Jan. 22, 1917, and published in the New York State Journal of Medicine (17 West Forty-third Street, New York City), for February, 1917, pp. 81-84.

² Social Insurance with Special Reference to Compulsory Health Insurance. A report prepared for the committee on insurance of the Chamber of Commerce of the State of New York, by John Franklin Crowell. Chamber of Commerce, 65 Liberty Street, New York, 92 pp.

to be paid by the State, and commits the State to the payment, in addition, of one-fifth of the fund necessary to carry out the indemnity provisions of the bill; that the law would lay a heavy burden upon the taxpayers of the State; that any plan for health insurance should place emphasis on the prevention of sickness and not on the payment of claims; that the expense of such a law, if enacted, should be borne alone by the employers and the employees, the State paying not more than the expenses of supervision; and then goes on record as favoring the creation of a commission to investigate the wages and living conditions of employees and the extent to which sickness and accident can be reduced by existing State agencies, and also to determine, as far as possible, the cost of such a law if divided equitably between employers and employees.

The bill pending in the New York Legislature has also been the subject of attack by the National Civic Federation in a statement prepared by the legislative committee of its social insurance department.¹ This statement was prepared for the use of legislators, "to show the weaknesses, shortcomings, and dangers in the proposed legislation," which may be summarized as follows:

Inaccurate definition of disability. The presumption that compulsion is essential. The scheme of insurance is neither compulsory nor voluntary, but a mixture of both. Certain groups of workmen are excluded from membership. There is discrimination against voluntary members. Benefits are not based on accurate knowledge of cost. There is lack of uniformity in medical and surgical care. There is failure to give funds necessary autonomy and power. Malingering is not controlled. Difficulties in administration exist. Fundamental insurance principles have been ignored. Distribution of cost is based on insufficient data. The cost of the benefits will be in excess of the provisions of the bill. The administrative machinery is complicated and unnecessary. There is no supervision by the insurance department. Prevention of disease is a secondary consideration.

One of the most elaborate criticisms of the act for health insurance prepared by the American Association for Labor Legislation is that written by P. Tecumseh Sherman, attorney, 15 William Street, New York City,² who objects to the compulsory feature of the bill and advises, first, a careful study of the results of existing experiments "in the most democratic European countries," but suggests that if it is deemed necessary to resort to the immediate application of compulsion "it would be far more reasonable to copy the conserva-

¹ Compulsory Health Insurance. Statement issued by social insurance department, the National Civic Federation, prepared by legislative committee, Dr. Lee K. Frankel, chairman; A. Parker Nevin, National Association of Manufacturers; Hugh Frayne, American Federation of Labor. 1 Madison Avenue, New York. 22 pp.

² Criticism of a tentative draft of an act for health insurance "submitted for criticism and discussion by the committee on social insurance of the American Association for Labor Legislation," by P. Tecumseh Sherman, 15 William Street, New York. February, 1917. 94 pp.

tive features of the European precedents." The direct benefits proposed by the association bill—

would fall woefully below expectations and be more than offset by the effort, waste, and expense involved, and that its indirect results—more particularly those arising out of its elimination of individual rights, its attempt to subject the people to a politico-medical despotism, its arrayal of class against class in struggles over the political division of wealth, and its heavy multiplication of bureaucracy—would be vitally injurious to the common welfare.

Insurance men, as a rule, find little to commend in the principles of health insurance. Thus Frederick L. Hoffman, of the Prudential Insurance Co. of America,¹ declares such insurance to be artificial, ill advised, and un-American; that it is wholly unnecessary, because the overwhelming majority of American wage earners are fully able to provide for reasonable medical attendance and the cost of sickness; that much more is to be gained by efforts in the direction of higher wages and shorter hours than by the establishment of compulsory health insurance; that the demand for such legislation comes from those who are not representatives of wage earners' interests; that the alleged benefits in the direction both of pecuniary advantages to wage earners and of improvements in health and longevity would be obtained "through a truly colossal bureaucratic machinery" that would be equivalent to a State medical service; that it would result in a demoralization of the medical profession; that the cost would be very large; that it would bring about a further regularization, supervision, and control of wageworkers and their dependents; and that existing forms of voluntary sickness and life insurance are being taken advantage of by a large number of wage earners, thus making health insurance unnecessary.

It is, therefore, decidedly to the interests of the American people that the propaganda for compulsory health insurance should be intelligently opposed as un-American because of the vicious class distinction it implies, as uncalled for by the special or economic necessities of our wage-earning population, as needless because of our satisfactory health conditions, and as contrary to public policy because of the resulting discouragement of any and every form of voluntary thrift.

Another insurance representative to object to the introduction of health insurance in this country is William Gale Curtis, chairman of the educational committee of the Insurance Economic Society of America, who, in a paper read before the Medical Society of the County of New York, January 22, 1917,² cited 21 "economic disad-

¹ An address delivered at the seventeenth annual meeting of the National Civic Federation, held in New York City on Jan. 22, 1917, an abstract of which appeared in the Economic World (Chronicle Co., Ltd., 48 Wall Street, New York City) for Feb. 3, 1917, pp. 165, 166.

² Published in the New York State Journal of Medicine (17 West Forty-third Street, New York City) for February, 1917, pp. 75-78.

vantages" of compulsory health insurance, the more important of which may be summarized as follows:

It would not make up the loss occasioned by sickness among wage earners—a loss that has been estimated at \$600,000,000 per year.

Such a law could not be enforced without cumbersome and expensive police powers.

It would place a burden of extra labor and expense on the employers because of necessary record keeping in deducting from the wages of employees their share of the expense.

It would involve an extraordinary amount of transfer accounting from one association to another, on account of the constant shifting of laborers. Interstate complications would rise.

It would be difficult for the State to determine the amount of its 20 per cent and to distribute the 20 per cent in ever varying amounts to the 1,800 or more carrier associations.

The operation machinery of each carrier association would be top-heavy.

There would be opportunity for corruption in a necessarily large politically appointed State organization.

There would be many rejections under the law, and the time consumed in examining these would be added to the time lost on account of sickness, which it is expected the law would reduce.

The law would occasion loss of American spirit, individualism, thrift, and self-dependence.

Taking away from the wage earner a per cent of his income would tend to impoverish him. "Compulsory thrift would be more reasonable, more feasible, and more economical."

"Any plan to pay out hundreds of millions in service and indemnity when the proper administration of various State and municipal departments would save that money, is a plan to be condemned."

It would "deal a body blow to their [wage earners] most precious possession—personal dependence and independence," because under the law they would receive a bounty from the employer and the State.

The law would be unconstitutional and confiscatory, taking personal property from one man and bestowing it upon another.

Labor conditions in this country are not the same as in Europe, and therefore such a law is not needed here.

Prevention of sickness by the development of existing agencies in city and State should be promoted, thereby saving at least \$400,000,000 of the present wage loss "instead of a continuing loss of \$600,000,000 at an expense of at least half as much more."

Such a law would interfere with national progress, destroy existing relations between wage earner and employer, between wage earner and physician, between different branches of medical practice, between members of society, between employer and State; would promote political and civil corruption.

If sociological theorists will stop trying to devise and promote plans to pay and continue paying more and more for social loss and turn their attention to a campaign of prevention only, capital, business, industry, and labor will stand united with them, and industry and labor will, as it always has done, find a proper solution for its differences.

Samuel J. Kopetzky, chairman of the committee on medical economics of the Medical Society of the State of New York, has analyzed the economic disadvantages presented by Mr. Curtis, pointing out briefly what in his opinion are the fallacies of the arguments submitted, and concludes:¹

* * * Why should the conjoining of the interests of capital and labor for mutual benefit destroy national progress? Does the National Civic Federation stand for a stoppage of national progress because employer and employee and the public interest are represented in one organization? Will not this act rather tend to multiply the very idea which underlies that organization? We should like to see detailed proof of how such an organization could stop national progress.

That health insurance would give the country a proportionately small return for the tremendous outlay of money is the opinion of Frank F. Dresser, counsel for the health committee, National Association of Manufacturers, in an interview granted by him to a representative of the New York Times and published in its magazine section of March 11, 1917. Mr. Dresser emphasizes this item of cost, suggesting that in a State like Massachusetts the amount would be about \$23,000,000 annually, of which the workmen would contribute nearly \$9,000,000, the employers, \$9,000,000, and the State about \$5,000,000, "an increase of our present State tax by over 40 per cent," and that this cost would ultimately be passed on to the taxpayer in the form of additional taxes and a higher price for the product.

Another objection cited by Mr. Dresser is "its failure to disclose responsibility for conditions which may produce illness and to assess the cost of them where it belongs." It was also pointed out that there is about as much time lost on account of voluntary absences as on account of absences due to sickness and accident, and yet, in spite of this fact, about three-fourths of the wage earners are able to carry insurance of some sort. "The need of charitable relief, therefore, is found not among all wage earners but only among a portion." Again, the proposed law makes the employer an insurance collector, which limits the scope of the measure to those who are employed, thus automatically crowding out the unemployed,

¹ "Comments on the arguments of Mr. William Gale Curtis," by Samuel J. Kopetzky, published in the New York State Journal of Medicine (17 West Forty-third Street, New York City), for February, 1917, pp. 78-81.

unemployable, the casual worker, and the aged. The self-employed are also not covered by the law.

Another objection to the measure lies in the very troublesome problem of supplying adequate medical care to those who need it at a proper cost.

Mr. Dresser also emphasized the fact that whereas the watchword of medical science to-day is prevention, the bill itself and the cost of it do not include preventive work.

EXPERIENCE OF A TYPICAL ESTABLISHMENT BENEFIT FUND.

A threefold plan of social insurance, embracing service pensions, compensation for accidents, and health insurance, has been put into operation by F. C. Huyck & Sons, woolen manufacturers, Albany, N. Y., for the benefit of its employees numbering approximately 400, mostly from the families of railway engineers, firemen, and trainmen. The experience of this company, so far as the health insurance phase of this plan is concerned, is described by Edmund N. Huyck in the March, 1917, issue of the American Labor Legislation Review (pp. 85-90). The employees contribute 1 per cent of their wages to the fund, while the company contributes such additional amount as may be necessary to pay the actual expenses of health insurance. When the plan was put into operation on May 8, 1911, about 98 per cent of the nearly 275 employees accepted it, and new members, if under 45 years of age, are admitted after two or three weeks' service, upon passing a medical examination. The benefits offered are briefly as follows:

For disability arising from illness or accident outside of work in the plant, 50 per cent of wages to be paid after the third day for the entire time of disability; free medical, surgical, and hospital treatment and medicines, and in case of death 30 per cent of wages to the widow for life or until remarriage, with 15 per cent for one child and 20 per cent for two or more children until reaching the age of 16, and \$100 funeral expenses.

There are two operating committees, one for men and one for women, each consisting of a representative chosen by the employees, with another representative chosen by the company, the secretary of the company acting as the third member of each committee. A physician is employed at a regular salary, who, in addition to treating the members at their homes and in his office, holds daily clinics at the plant; he is consulted freely by the members. "There has been little or no malingering" since the members themselves are contributing to the fund and "do not purpose to see any one benefit undeservedly."

The total amount that has been contributed for health insurance is \$16,758.67, of which the employees contributed \$8,858.67 and the

company \$7,900. There was a balance of \$2,476.21 at the end of the fifth year, July 1, 1916, making a total cost of \$14,282.46, or "1.6 per cent of the pay roll." Disability and death benefits have amounted to \$8,618.69, which practically equals the 1 per cent of wages contributed, and medical service, hospital treatment, and medicines have amounted to \$5,662.52.¹

It may be interesting to note that the entire insurance plan has involved a total contribution of \$27,108.67, of which the company has contributed \$18,250 and the employees \$8,858.67. On July 1, 1916, there was a balance of \$3,133.01, making the entire cost \$23,975.66, "which is 2.7 per cent of the pay roll for the period," instead of an approximate 3.5 per cent, with a maximum of 6 per cent estimated at the time the plan was inaugurated.

Mr. Huyek suggests that a spirit of fairness and an appreciation of the benefits of the plan have been shown by the employees from the start and cites the following instance:

In case of illness there is no payment for the first three days. Some time after the plan was started a committee came to us and said they feared that some advantage would be taken of this; that a person having been out ill for three days might stay out the balance of the week because half pay could be secured; and, as they did not wish the plan to fail for any such cause, they thought it would be better that there should be no payment for the first week. There have also been cases where employees, having been out for some time and having received more than the amount they had contributed, asked to have payments stopped, as they did not think it fair that they should draw more than they had paid.

The company appears to be well satisfied with the operation of the plan and feels that the expense has been amply justified by the results achieved.

There is not the slightest question in our minds but that, except that it does not provide for those who leave the company's employ, the plan has been in every way successful; that it has given us steadier, healthier, more contented employees; that it has made us more alive to the need of healthful, sanitary, working conditions; and that it has been worth to our company far more than it has cost us.

There appears to have been very little difficulty in the administration of the plan.

The administration of the plan has been very simple. The entire records are kept in two large check books, with divided stubs for description and distribution of all receipts and payments. The 1 per cent contributed by employees is deducted each week from their wages and deposited in the mutual contribution account. The whole thing is so simple and has been of such great value to everyone concerned, and the cost has been so small, considering the number of employees involved and the size of the business, that our conviction has become

¹ There is a slight discrepancy in these figures which are taken from Mr. Huyek's article. It will be noted that the last two items total \$14,281.21 instead of \$14,282.46.

very strong that more employers would undertake such experiments if they knew and understood the facts.

Mr. Huyck strongly indorses the general principles of health insurance, stating that, in his opinion—

it is far more important than workmen's compensation, and I feel that all arguments against it must fall and that finally we in this country will take the position of those countries that are so far ahead of us in social insurance and demand of our State governments that the protection of health insurance be given to working men and women.

INDUSTRIAL UNREST IN GREAT BRITAIN.

At the Manchester meeting of the British Association for the Advancement of Science, held in 1915, an extended discussion developed on the subject of the promotion of industrial harmony,¹ and so important was the matter regarded as affecting economic conditions after the war that a committee was appointed to investigate the causes of industrial unrest and the attempts made to diminish it. The report of this committee is embodied in Chapter II of the volume, "Labour, Finance, and the War," recently issued by the association.² Seven causes for existing industrial unrest were found, as follows:

1. The desire of workpeople for a higher standard of living.
2. The desire of workpeople to exercise a greater control over their lives and to have some determining voice as to conditions of work. These include a consideration of the effects of speeding up on the one hand and of limitation of output on the other.
3. The uncertainty of regular employment.
4. Monotony in employment.
5. Suspicion and want of knowledge of economic conditions.
6. The desire of some employers for more regular and satisfactory labor.
7. The effects of war measures.

The desire of workers for a higher standard of living finds expression in a demand for higher wages, resulting frequently in labor disputes. In fact, it is noted that unrest among workpeople in recent years has been coincident with the rise in the cost of living, and that the revival of industrial strife after the truce of the early months of the war followed upon a considerable and steady increase in prices, especially of food. It is perhaps natural that workers should desire to raise their standard of living, "but the extent to which improve-

¹ A summary of this discussion is contained in the volume, *Credit, Industry, and the War*, issued by the British Association for the Advancement of Science. Ch. II, pp. 17-67. London [1916]. Price, 2s. 6d.

² *Labour, Finance, and the War*, being the results of inquiries arranged by the section of economic science and statistics of the British Association for the Advancement of Science during the years 1915 and 1916. Ch. II, *Industrial Unrest*, pp. 20-57. London [1916]. Price, 3s. 6d.

ment is possible is limited by the industrial development of the nation. It is impossible to raise the general standard of living indefinitely by raising wages, without at the same time raising the productivity of our industries."

The practice of speeding up by employers and the consequent reduction of wage rates, and the retaliatory practice of limitation of output by workers have been fruitful of considerable industrial unrest. The committee suggests the importance of employers realizing that the cutting of piece rates may actually be uneconomical and that they should give attention to the cost of labor and not merely to the amount of wages paid. On the other hand, the workers should remember that limitation of output can not increase the demand for labor, but may even lessen it, and undoubtedly tends to lessen the amount available for paying wages. It is pointed out that labor also desires the right to determine the class of worker that shall be employed on a particular job.

The uncertainty of regular employment appears to be one of the main reasons for industrial unrest, and the committee suggests that this condition may be minimized by the extension of unemployment insurance with increased benefits to workers.

Monotonous work is recognized as a valid reason for unrest because it constitutes a considerable nervous strain. But the committee thinks that the evils of monotonous employment inside the factory may be lessened by improved working conditions and also by varied conditions of living outside the shop.

So far as workers being suspicious that they are being exploited is concerned, it seems that this is due to their lack of knowledge of economic conditions in the industry which, if known, would prove much of the suspicion to be baseless.

The desire of employers for more regular and satisfactory labor is natural, and they are urged to regularize employment and discourage overtime, while the workers are urged to look ahead, exercise thrift when work is plentiful, and thus average their earnings so as to enjoy the highest standard possible.

War measures, especially the Munitions of War Act, have operated to curtail the freedom of action of employers and employed, while the decisions of the tribunals have seemed too harsh to the workpeople. The irritation thus caused has been intensified by the physical strain involved in long hours of work at high speed. Furthermore, the cost of living has increased materially; many companies have apparently made big profits, leading labor to believe that the nation was being exploited for private gain. "The fresh outburst of strikes in 1915 was as much a protest against such exploitation as a demand for higher wages."

The investigating committee found that this industrial unrest has been met in a large degree more or less successfully (1) through the activities of conciliation and arbitration boards; (2) by arbitration, compulsory and voluntary; (3) by the industrial council, representing employers and employees, established in 1911 for the purpose "of considering and of inquiring into matters referred to them affecting trade disputes; and especially of taking suitable action in regard to any dispute referred to them affecting the principal trades of the country, or likely to cause disagreements involving the ancillary trades, or which the parties before or after the breaking out of a dispute are themselves unable to settle"; (4) by the application of profit sharing and copartnership; and (5) by cooperation.

The value of the work of the boards of conciliation is shown by the small proportion of cases referred to them which ultimately involve stoppage of work. In 1913, 195 boards and joint committees took action in 4,070 disputes, of which 2,283 were settled, 291 were referred to umpires appointed by them, and only 31 resulted in stoppage of work. The committee suggests that the machinery of conciliation boards should be extended and perfected and that these boards should be made a permanent feature of each industry. Since there are many differences that can not be settled by mutual agreement, voluntary arbitration has been resorted to; but arbitration has proved unsatisfactory, to a certain extent, because of the difficulty of finding an arbitrator who is impartial and who knows the industry thoroughly. There is no way of enforcing an award, but "as a matter of fact, it is surprising how few awards are rejected on the whole." Compulsory arbitration was introduced by the Munitions of War Act of 1915 and has been accepted as an emergency measure, although both labor and capital seem to be strongly opposed to it. Arbitration may be adopted satisfactorily to determine matters of fact, but questions of principle are beyond its scope, and since some matters in dispute, for example trade-union recognition, involve the attitude and will of the parties, much difficulty in settling them by arbitration may be experienced. To this extent, then, arbitration, both voluntary and compulsory, does not meet the situation created by industrial unrest.

Profit sharing has been only partially successful because the workers have felt that it was a scheme both to obtain greater production at comparatively small cost and to weaken trade-unionism. Besides, it is stated that "the existing systems of profit sharing and copartnership hardly meet the claims of labor for a share in the control of industry." As to cooperation, it is regarded as a very attractive ideal and "has so much to recommend it that its success is to be desired."

The committee's recommendations are based upon a recognition of the necessity for an industrial reorganization involving a revision of methods of production, and are submitted in the hope that they "may prove helpful in the solution of the greatest industrial problem that has ever faced a nation." These recommendations concern (1) the general attitude and outlook of employers and workmen; (2) the machinery for dealing with disputes; (3) the organization of industry; (4) post-war arrangements.

In the first place, the committee believes that there should be frankness on both sides and that both employers and workers should discuss industrial matters together or through duly accredited representatives. "Only thus can they come to understand each other, and such an understanding is the first essential to a solution of the problems of industrial unrest." In the second place, employers should consider the collective cost of labor and not the total amount of wages earned by workmen each week. If this is done it may be expected that labor will abandon its position on limitation of output, already mentioned. Employers appear to be recognizing this fact. "It must be said, however, that the majority of employers still adopt the narrow attitude described, and it is necessary for the majority to change before we can hope for a change in the policy of trade-unions." Finally it is essential that the fundamental facts and principles of economics be known by employers and employees in order that each may have a better understanding of the problems of industry.

In considering the machinery for dealing with disputes it is recommended that workers and employers in each industry should extend and improve their organizations with a view to determining jointly the conditions under which the special industry should be carried on. It has been suggested that membership in these organizations should be compulsory, but the committee thinks that a wiser solution would be for the State to recognize approved associations of employers and trade-unions, and that when these organizations in any trade have come to an agreement as to wages, hours, conditions of employment, etc., the whole trade in the district affected, both employers and employed, should be bound under penalty to work in accordance with the agreement.

Interest and not legal compulsion would thus induce all to join their trade organizations, and the many serious problems raised by compulsion would be avoided.

The value of permanent joint boards and committees having been mentioned heretofore, the committee recommends that they be established in each industry to consider all matters of common interest to both employers and employees, including not only questions in dis-

pute but important problems concerning the organization of the industry. As a final arbitrator, in case these boards are unable to settle disputes, a national joint board is proposed. But it is important that both employers and workmen should be absolutely loyal to the decisions and agreements made by their organizations.

Perhaps the most important factor in dealing with industrial unrest is the proper and effective organization of industry, involving, first of all, the frank recognition of the necessity for cooperation between employer and employee. This cooperation should not only be concerned with distribution of product, but should cover also a determination of conditions under which work is carried on, including hours of labor, rest periods, working shifts, speed of machinery, discipline, etc. It would then better the standards of work, leading employers to refrain from excessive speeding up and employees to modify their policy of restriction of output.

Special attention was given by the committee to conditions where labor-saving machinery or new processes have been introduced which diminish the amount of labor required for a given operation. Here an economic situation is created which affects the employer by causing a decrease in the cost of production; lower prices and increased demand for the special commodity manufactured, and hence reduction of overhead charges; the employment of less labor, but possibly somewhat higher pay for those employed; and increased profits. So far as workers are concerned, a few skilled, semiskilled, or unskilled may be retained to operate machines; some men will be advanced in pay, while others will be forced out of employment. To meet this emergency, the committee suggests that employers should make a forecast as to the exact effect of the new methods, this forecast to be considered by both employers and workers; that an arrangement should be agreed upon with due regard to the fact that capital takes all the financial risk of the new methods, but has heretofore had the advantage of any immediate gain; that labor at the outset may be diminished in number, although eventually more men will be employed; that some labor may benefit immediately, and that labor is employed in making and designing the machines; and that employers should consider to what extent temporarily displaced labor can or ought to be compensated by means of unemployment insurance or by a percentage of the increased product.

The report thus summarizes its recommendations for the improvement of existing industrial unrest:

Employers should be organized into—

- (a) Associations of one trade in a given district.
- (b) National association of one trade.
- (c) Local federations of trades.
- (d) National federations of trades.

Of these, (a) and (d) would be organized under a system of representation. Workpeople should have unions and federations corresponding to those of the employers, and in both cases the national federations should be carefully organized councils enjoying a large measure of authority, tempered by the necessity to win and preserve the confidence of their electors. From these two representative bodies there could be elected an industrial council as a court of appeal representative of the whole industrial activity of the country. So far as these various bodies were approved by the State, they would enjoy far-reaching powers. Approval by the State should depend on the observance of moderation and the working in conformity with carefully devised regulations, for the State, in this matter, would be the representative of the consumer and of the national interest.

To deal with the problems that will arise in connection with the demobilization of the troops after the war the committee recommends the establishment of district boards of practical men, who shall have power to handle each case as it arises, their special work being to supervise the reinstatement in industry of those who left their employment either to fight or to make munitions. It is believed that representative business men who know conditions as to markets, etc., should make a forecast of what may be expected in home and foreign trade, that such forecast, after thorough consideration and test, should be submitted to labor, and that both parties should meet and endeavor to agree upon a policy to meet whatever is anticipated—either increased or decreased business, less or keener competition in the markets, and the sharing of gains or the meeting of losses.

Appended to the report is a note expressing the views of two members of the committee who think that the report is deficient in that it suggests improvements within the existing industrial system, whereas a movement that aims at far-reaching economic reform must involve a change in the system itself. It is urged that in any scheme for coping with the industrial situation the State must be a third party to any agreement, carrying a step further the plan of the committee for cooperation between employers and employees. Industry "must be self-managed but State regulated," if it is to be standardized and if the workman is to secure that status in industrial democracy to which he is entitled as a citizen.

GOVERNMENT CONTROL OF FOOD SUPPLIES IN FRANCE.

With respect to maintenance of a sufficient supply of food during the present war France, until very recently, was apparently in a situation more favorable than either Great Britain or Germany; more favorable than Germany, since until February 1, 1917, she had no blockade to undergo, and has been able to maintain free access to

all her ports. Her position was, in certain respects, more favorable than that of Great Britain, since normally France is almost self-sufficient, and does not have to resort to importation from abroad for so large a part of her food supply.¹ But on the other hand it must not be forgotten that France has a part of her territory invaded, not very large in area, but very considerable in industrial production; for it is there that most of her coal and iron mines, her mills and factories of wool and cotton, her fields of beet roots, and her sugar refineries, are located. Even the wheat and potato crops have suffered considerable diminution from this cause. It is for this reason that the general rise in prices for foodstuffs has on an average been hardly less than in England, but much more for products peculiar to the invaded area.

Nevertheless the French Government has not had to resort to the same extreme measures as the German, notably to rationing. No food product has yet been rationed in France. The fixing of a maximum price has been employed up till now only for a few commodities.²

MAXIMUM PRICES FOR WHEAT, FLOUR, AND BREAD.

So far as bread and meat are concerned, fixing prices is not an innovation due to the war. It is authorized by an old law dating from 1791; indeed, this law is the oldest weapon in the French legislative arsenal, and it empowers mayors to fix prices for these two commodities whenever they judge prices to be too high. The law has been in force since its adoption, in spite of the protests of economists, who for more than a century have continually agitated for its repeal.

Mayors have made use of this power in regard to bread fairly often, though rarely in regard to meat. But the Government rightly thought that the authority of the mayors to fix the price of bread would be useless in practice, or quite unfair to the bakers, if at the same time prices were not fixed for wheat and flour, the raw materials of bread. The mayors could not have maintained the price of bread at 40 centimes a kilogram (3.5 cents a pound) if the price of wheat

¹ In 1913, out of a total importation amounting to 8,231,000,000 francs (\$1,589,000,000), France imported 1,803,000,000 francs (\$348,000,000) of foodstuffs, of which there were 613,000,000 francs (\$118,000,000) of wheat and flour, while in 1912 Great Britain imported £262,000,000 (\$1,275,000,000) of foodstuffs, and Germany 3,170,000,000 marks (\$754,000,000) of foodstuffs. The above importation amounts to scarcely 12 per cent of the total French consumption of foodstuffs. It must be observed, moreover, that under normal conditions French exports amount to 833,000,000 francs (\$161,000,000). It would therefore have been permissible to suppose that during the war France would not have exported any foodstuffs and would have imported only a small quantity. But this was not the case, for in 1915 the total imports of foodstuffs amounted to 2,549,000,000 (\$492,000,000) and the total exports of foodstuffs to 544,000,000 francs (\$105,000,000). The increase of imports was due to the bad harvests of 1915 and decreased acreage. The larger part of the exports went to Great Britain and Switzerland.

² Gide, Prof. Charles. "The provisioning of France and measures taken by the Government to that end." *The Economic Journal*, London, March, 1916, pp. 35 ff.

had risen above 40 francs per 100 kilograms (\$3.50 per 100 pounds). For this reason the law of October 16, 1915,¹ fixed the price of wheat weighing 77 kilograms per hectoliter (59.8 pounds per bushel) and not containing foreign admixtures in excess of 2 per cent at a maximum of 30 francs per hectoliter (\$2.04 per bushel), and provided for an increase of this price by 1 per cent for each additional kilogram of weight per hectoliter and a deduction of 1 per cent for each additional per cent of foreign admixtures. The same law gave the Government the right to requisition wheat from the farmer, or from the merchant, at that price. Actually the State only uses this right very exceptionally, but the possibility of making use of it is sufficient to keep wheat practically at this price of 30 francs, since no one is willing, in buying it at a higher price, to run the risk of having it requisitioned by the State at 30 francs. The law leaves the regulation of prices for flour to the prefects of Departments, because conditions of milling and transport vary a little in different districts, but the prices which they may fix range within narrow limits, which are, roughly, within 40 and 42 francs per 100 kilograms (\$3.50 to \$3.68 per 100 pounds) of flour. Beginning with the date of the promulgation of the law, millers were prohibited from producing any other kind of flour than a 74 per cent whole-wheat flour. During 1916 the minimum percentage of extraction was increased by law first to 77 and finally to 80 per cent.²

The production of home-grown wheat not having been sufficient in 1915, as much owing to the invasion as to the scarcity of agricultural labor, importation of foreign wheat has been necessary. Empowered by the above law the Government has bought foreign wheat and resold it to those Departments which were in need of it. A body called "The Supply Commission," established by a decree of September 8, 1914,³ has been intrusted with this important work. It acts under the authority of the Ministry of Commerce. As a rule the commission does not resell the wheat directly to consumers, but to the chambers of commerce, which exist in all the large towns, and which undertake to distribute it as they receive orders for it. Between May and the end of December, 1915, the commission bought 5,758,000 quintals⁴ of imported wheat at prices much higher than 30 francs per hectoliter (\$2.04 per bushel), the price charged the consumer.

The resultant loss is borne by the State, a credit of 200,000,000 francs (\$38,600,000) having been voted for the purpose. In order to minimize this loss the State has chartered a large number of ships, which are used for the transport of cereals. A considerable saving

¹ Journal Officiel de la République Française. Paris, Oct. 17, 1915, p. 7441.

² Bulletin du Ministère du Travail. Paris, July-August, 1916, p. 330.

³ Journal Officiel, Sept. 9, 1914.

⁴ A quintal=100 kilograms (220.46 pounds).

was thus effected, for, as is well known, the high price of wheat is in part due to the enormous rise in freight rates.

Thanks to these measures, the French consumer does not have to pay appreciably more for his bread than before the war, and considerably less than in England. In France the price of a 2-kilogram (4.4 pounds) loaf has so far not gone beyond 85 centimes (16.4 cents), while in England the consumer pays 10 pence (20.2 cents) for a 4-pound loaf.

As may be imagined, the farmers were not altogether satisfied with seeing themselves prevented from asking the maximum price for their wheat which the law of supply and demand would give them. When the enactment of the law of October 16, 1915, was impending, the farming interests made the claim that if the Government forbade them to exact a higher price for their product than that fixed by this law it should for the same reason prevent farm laborers from exacting the maximum wages for their services. The Government granted to the farming interests some compensation by reestablishing (by a decree of Oct. 16, 1915¹) the import duty of 7 francs per 100 kilograms (61 cents per 100 pounds) of wheat, which had been abolished at the beginning of the war (by a decree of July 31, 1914). This reestablishment of the customs duty, which at first sight appears absurd in view of the problem of combating the rise in price and even the risk of famine, is, however, explained if one reflects that, as the law, by fixing prices, prevents the farmers' profiting from the rise, it is fair that it should guarantee him against a possible fall in prices which might result from the importation of foreign wheat. In this instance the fixing of a maximum limit implied the fixing of a minimum limit. In any case the question is now of less interest since, the price of foreign wheat being much higher than the national price of 30 francs, there is no importation except that which the State introduces at a loss.

The fixing of the prices of wheat and flour has had, moreover, certain unexpected and vexatious results. Thus it has happened that oats, not having come under the regulation of prices, have, without hindrance, risen in price above the price of wheat—at the beginning of 1916 to 40 francs per hectoliter (\$2.72 per bushel). But as at this price it is much more advantageous for the farmer to produce oats than wheat, it has come about that the farmer has preferred to sow his field with oats rather than with wheat, to the great detriment of the wheat harvest; or that he has even preferred to feed his horses on his wheat and keep his oats for sale. This latter abuse has been stopped by the law of April 25, 1916, which prohibits the feeding of wheat, wheat flour, or wheat bread to horses, asses, and mules.

¹ Journal Officiel, Oct. 17, 1915.

MAXIMUM PRICES FOR OTHER COMMODITIES.

Two laws, dated April 17 and 20, 1916,¹ respectively, while not actually fixing maximum prices, gave to the Government authority to fix maximum prices for certain commodities.

The first of these laws provides that during the present war maximum prices may, on proposal of the minister of the interior, agriculture, and commerce, be decreed for oats, rye, barley, bran, and grain offals, with proper consideration of specific weight and of foreign admixtures.

The second law provides that during the present war and for three months after cessation of hostilities maximum prices may be fixed by decree for the following articles: Sugar, coffee, potatoes, milk, margarine, alimentary fats, edible oils, dried legumes, paraffin and petrol, commercial fertilizers, copper sulphate, and sulphur. Wholesale prices at the port of entry or place of manufacture for coffee, sugar, paraffin, and petrol are to be fixed by decree on proposal of the minister of commerce. In all other cases covered by the law the maximum prices are to be fixed by the prefects of the Departments after consultation with a commission to be formed for that purpose in each Department. In the war zone prices may be fixed by the military authorities for all articles of food and drink for military consumption, even if not mentioned in this law. The same applies to the civil population in the war zones after the military authorities have consulted the prefects of the Departments concerned.

The departmental commissions provided by the law are to consist of 4 members appointed by the prefect, 4 members appointed by the general council of the Department, 4 representatives of the chambers of commerce, 4 representatives of agricultural societies, the departmental director of the agricultural service, and the departmental veterinary.

Appeal against maximum prices fixed in accordance with this law may be made by any mayor of a commune of the Department affected, and by any merchant or producer affected. Merchants and producers must make appeals within 10 days after the promulgation of the prices fixed. Appeals must be made by registered letter to the minister of the interior or to the minister of commerce and the appellant must notify the prefect of the appeal, who in turn must bring the appeal to the notice of the public by insertion in an official paper. Appeals of this kind have no suspensive action. The minister must render a decision within two weeks after the receipt of the appeal.

The law further provides that retailers shall conspicuously post the prices fixed by the prefect and fixes penalties for all infringements of its provisions.

¹ Journal Officiel, Apr. 19 and 21, 1916.

The British Board of Trade Journal¹ reports that in November butter, cheese, and oil cakes were added to the commodities subject to requisition and to the regulation of prices in France.

To what extent the prefects have made use of their power to regulate prices in accordance with the law of April 20, 1916, can not be stated here for the reason that orders issued by prefects are being published only in the provincial papers, and not in the *Journal Officiel*, the only official source available for the present article.

MAXIMUM WHOLESALE PRICES FOR SUGAR.

Based on the authority of the law of April 20, 1916, three decrees have been issued by the President regulating wholesale prices of sugar. The maximum prices fixed by the last of these three decrees, published in the *Journal Officiel* of January 3, 1917, are the following:

MAXIMUM PRICES OF VARIOUS KINDS OF SUGAR, AS FIXED BY DECREE PUBLISHED IN JANUARY, 1917.

Kind of sugar.	Price (inclusive of excise duty).	
	Per 100 kilograms.	Equivalent per 100 pounds.
Refined lump sugar:		
In packages of 5 kilograms (11 pounds) or over.....	Francs. 146.00	\$12.78
In packages of 1 kilogram.....	148.25	12.98
Refined pulverized.....	146.00	12.78
Loaf.....	142.50	12.47
Broken.....	151.00	13.22
Granulated or crystal:		
Of every origin (inclusive of customs duty).....	134.00	11.73
Pulverized.....	137.00	11.99
Crystals, extra.....	137.00	11.99

These prices are for cash on delivery f. o. b. factory, refinery, or storage house, and do not include the refining tax of 2 francs per 100 kilograms (17½ cents per 100 pounds), nor the inspection fee of 8 centimes per 100 kilograms (0.7 cent per 100 pounds). In the case of refined sugar, manufactured in the refineries of Nantes, Bordeaux, Chalon-sur-Saône, Briénon, Sermaize, St. Beauzire, Chappes et Chagnat, and Bresles, the above prices may be increased by the car-load (5,000 kilograms) freight rate from these localities to Paris.

A decree of December 5, 1916,² established in the Ministry of Agriculture a commission for the study of problems relating to increasing the production of sugar in France.

MUNICIPAL AND COOPERATIVE MEAT MARKETS.³

With respect to meat, mayors of French communities have not made use of their right to regulate prices. They probably abstained

¹ Issue of Nov. 23, 1916, p. 582.

² *Journal Officiel*, Dec. 10, 1916.

³ Gide, Prof. Charles. "The provisioning of France and measures taken by the Government to that end." *The Economic Journal*, London, March, 1916, pp. 39, 40.

from exercising this right because meat has not risen in price above the average rise of all foodstuffs. It is, moreover, relatively easy to apply a fixed price to bread, as it is a homogeneous product, but the fixing of prices for meat is more difficult, because of the many different qualities of meat.

In some towns municipal meat markets have been opened. That is an indirect system of fixing prices which has the advantage over direct regulation in that no coercion is applied to privately owned meat markets, though it is as effective, or more so, as it acts by the pressure of competition. In the town of Nîmes, where a municipal meat market was opened on November 24, 1915, the experiment succeeded so well that it was necessary to open six branches in different parts of the town. Meat is sold by them 15 to 20 per cent below commercial prices.

In Paris the municipality, instead of opening butcher shops on its own account, has preferred to delegate this task to the cooperative societies of the city of Paris and of the Department of the Seine, or, to be more exact, to the Wholesale Cooperative Federation, which represents these societies. In point of fact, the enterprise does not extend to all kinds of meat, but only to frozen meat. It must be pointed out that until the war frozen meat did not enter France; it was shut out by the prohibitive customs duty of 36 francs per 100 kilograms (\$3.15 per 100 pounds). The protests of consumers in general, and of the cooperative societies in particular, had not been able to obtain the abolition or the reduction of this duty for a simple reason: The Chamber of Deputies dared not rouse the discontent of the agricultural interests. It is only through the war that the door has been opened to frozen meat.

But as there was no organization for the transport of this meat, for which special ships are necessary, the Government was obliged to apply to England. It is from England that it buys frozen meat to hand over to the cooperative societies, to whom it is delivered at 1.62 francs per kilogram (14.2 cents per pound), and, in addition, a discount of 20 centimes per kilogram (1½ cents per pound) sold is granted by the State as subsidy. Some anxiety was felt as to whether the working classes, who patronize the cooperative societies, would appreciate this meat. But the experiment, which dates only from the end of January, 1916, appears destined to be a great success. The population of Paris has given a warm welcome to the "frigo," as they already call it familiarly, and the sales are all that could be desired.

This experiment with frozen meat is of twofold interest for France: First, because it introduces a new product which may in the future considerably reduce the cost of living to the French consumer; and, above all, because it gives a semiofficial status to the cooperative

societies, which up till now have been regarded unfavorably in France. It makes them almost a national institution.

As regards meat also, it should be mentioned that various orders have been issued forbidding the slaughter of calves and lambs, to permit the flocks and herds in the country to make good their numbers, which have been greatly reduced by the abundant supply of meat to the armies. But from all accounts these orders have remained almost a dead letter.

ESTABLISHMENT OF A MINISTRY OF FOOD SUPPLIES AND TRANSPORTATION.

Among the recent changes in the personnel of the Briand cabinet, the one in which the public took the keenest interest—because it concerns most vitally their daily welfare—is the substitution of Edouard Herriot, former mayor of Lyons, with the new title of "Minister of public works, food supplies, and transportation," for Marcel Sombat, the outgoing minister of public works. A decree published in the Journal Officiel of January 1, 1917, gives to the new minister and his assistant, Albert Claveille, appointed as under secretary of transportation, almost autocratic control over the distribution of the necessities of existence among their fellow countrymen. The new minister controls the provisioning of the civilian population as well as of the army.

PROPOSED RATIONING OF SUGAR.¹

The sugar commission convened on January 12, 1917, in the Ministry of Food Supplies and discussed ways and means for the regulation of the consumption of sugar. As two-thirds of the sugar consumed in France is imported and transportation by sea is daily becoming more difficult and dangerous, the commission proposes to limit the consumption of sugar to 750 grams ($1\frac{2}{3}$ pounds) per person per month, this ration to be supplemented by an additional 3 kilograms (6.6 pounds) per person per year for household use in the making of pastry, preserves, etc. Sugar cards will be introduced to enforce the proposed measure.

LIMITATION OF THE SALE OF CONFECTIONERY AND PASTRIES.²

A further measure enacted for the purpose of reducing the consumption of sugar is contained in the decree of January 21, 1917. This decree provides that after February 1, 1917, all confectionery establishments must close Tuesday and Wednesday of each week except holidays. During these two days the sale of cakes, tarts, and candies is also strictly prohibited in bakeries, hotels, cafés, and groceries.

¹ La République Française, Paris, Jan. 13, 1917.

² Idem, Jan. 27, 1917.

LIMITATION OF COURSES IN RESTAURANTS.¹

During the latter part of January, 1917, the minister of food supplies called a meeting of representatives of the hotel and restaurant trade to lay before them and discuss plans for restricting the consumption of food in all places where meals are sold to the public. The result of this consultation was the promulgation of a decree providing that after February 15, 1917, no hotel, boarding-house, restaurant, saloon, café, club, dining car, lunch room, etc., may serve at any one meal more than two courses to a patron, only one of which may be a meat course. In addition to these two courses a patron may order soup, one side dish (the choice of which shall be limited to four kinds), and cheese or dessert (fruit, preserves, pastry, etc.). Cooked or raw vegetables consumed separately, i. e., not served as side dishes, are to be counted as a separate course. The serving of "entremets" is prohibited.

In order to do away with the waste of food consequent to elaborate menus the decree provides that bills of fare may not include more than two soups and the following nine courses: One course of eggs, two of fish, three of meat, and three of vegetables. The owners or managers of the establishments included in the decree must each day submit copies of their lunch and dinner bills of fares to the police authorities.

GOVERNMENT CONTROL OF COAL MINES IN GREAT BRITAIN.

From the beginning of the war questions in regard to the profits of coal operators, the prices of coal,² and the wages of the coal miners, especially in the South Wales district, have been a source of concern to the Government. The demands of the miners for increased wages have been based largely upon the belief that the coal-mine operators were making large profits out of the increases in prices since the beginning of the war.

A year ago the minister of munitions intervened and secured for the miners a 15 per cent bonus, and recently a further 15 per cent in the war bonus was demanded. The Board of Trade attempted by intervention to procure a settlement, but the operators objected to an investigation of their affairs with a view to ascertaining whether they could justifiably meet the miners' demands. No agreement being in prospect and the demand for coal being imperative, the Government assumed control of all the coal mines in the South Wales and Monmouthshire districts December 1, 1916, and a committee, representing the Board

¹ La République Française, Paris, Jan. 27, 1917.

² See article on "Increases in retail prices of coal in Great Britain," in MONTHLY REVIEW of July, 1915, p. 45, et seq.

of Trade, the Home Office, and the Admiralty, were appointed for the administration of the mines, the operators being ordered to continue working the mines under the usual conditions until further orders were given.

According to an announcement in the British Board of Trade Labour Gazette for February, 1917, the Government has decided that the Board of Trade shall take possession of all the coal mines in the United Kingdom for the period of the war, in addition to those in South Wales which have already been taken over under the Defense of the Realm Act. The president of the Board of Trade has decided to set up a new department, which will control the coal mines and will also exercise the other powers and duties of the Board of Trade with regard to coal.

EFFECT OF THE WAR ON THE COAL MINING INDUSTRY IN GREAT BRITAIN.

The first report of the departmental committee appointed to inquire into the conditions prevailing in the coal mining industry due to the war, dated May 27, 1915, indicated the probable loss of output as a result of the heavy enlistment of miners and suggested measures which should be adopted to prevent further decrease in production. In its second report dated December 10, 1915, the committee brought out the effect on the industry of the first 12 months of the war and the results achieved by the remedial measures suggested in the first report. The third report of this committee was issued on September 1, 1916.¹ In it the situation is reviewed up to the 1st of March, 1916, and a statement is made as to what further measures have been adopted in order to meet the changed conditions during the second year of the war.

This report shows that the coal production in the United Kingdom for the year ending July 31, 1916, was 254,748,000 tons, or a decrease of 9.38 per cent as compared with 1913-14, but a slight increase (1.7 per cent) over 1914-15. In order to turn the decrease of output into an increase it was found necessary, under certain conditions, to arrest the recruiting of miners and to provide for the replacement of those already in the army. At the end of March, 1916, 282,200 had joined the colors, but the replacement numbered 116,900, leaving a net reduction of 14.8 per cent of the labor at the outbreak of the war. On June 16, 1916, the Government prohibited all recruiting from miners and decided further that all miners in the ranks of home

¹ Great Britain. Home Department. Coal Mining Organization Committee. Third general report of the departmental committee appointed to inquire into the conditions prevailing in the coal mining industry due to the war. London, 1916. 17 pp. Price, 2½d. (5 cents). Digests of the first and second reports appear in the MONTHLY REVIEW for July, 1915, p. 56, and for July, 1916, p. 151.

service units, who were unfit for foreign service, should be returned to the mines, which would, it was estimated, make available between 15,000 and 16,000 workers and add about 4,000,000 tons to the output.

A serious factor with which the Government has had to cope is the large amount of absenteeism due to avoidable causes, which, if wiped out, would add, the committee estimates, about 14,000,000 tons to the total production. The report notes little encouragement along this line. It is stated, however, that a reduction of nearly 1 per cent in the absenteeism, as compared with the prewar period, represents about 20 per cent on the avoidable absenteeism, that the collieries have been worked more days, and that the men who joined the forces were among the young and strong of the miners, the men who have come into the mines not being their equal in point of endurance. An effort is being made to reduce absenteeism by the appointment of "absentee" committees at the mines, but no tangible results are noted.

So far as days lost by collieries is concerned, the first quarter of 1916, according to the report, shows up better than any other of the 10 preceding quarters. Thus the days lost per week in the first quarter of 1913, 1914, and 1915 were 0.53, 0.40, and 0.41, respectively, while in the first quarter of 1916 the number was 0.29. Holidays are given as the chief cause of lost time, but these, it is stated, have been reduced about 50 per cent as compared with prewar days.

The committee notes that "export of coal has been reduced to a dangerously low figure"—43,534,771 tons in 1915, as compared with 59,039,800 in 1914 and 73,400,168 in 1913. This, together with the reduced production—which, however, seems to be slowly increasing in amount—presents a situation which, in the opinion of the committee, is being met by the action of the Government in stopping recruiting of coal miners, the curtailment by the miners of holidays, the abandonment of stop days, and more regular attendance at work. However, it is believed that absenteeism is capable of much greater reduction and that the situation would be improved if economies in the consumption of coal were practiced.

ESTABLISHMENT BY BRITISH GOVERNMENT OF A NEW DEPARTMENT FOR THE ENCOURAGEMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH.

The following excerpt from the British Board of Trade Journal for December 7, 1916 (pp. 716, 717), relates to the establishment by the British Government of a new department designed through research to aid the industries of the nation:

The [British] Government have decided to establish a separate department of scientific and industrial research for Great Britain and Ireland under the lord president of the council, with the president of the board of education as

vice president. They have also decided, subject to the consent of Parliament, to place a large sum of money at the disposal of the new department to be used as a fund for the conduct of research for the benefit of the national industries on a cooperative basis.

The board of inland revenue have decided, with the approval of the chancellor of the exchequer, that no objection shall be offered by their surveyors of taxes to the allowance as a working expense for income-tax purposes, of contributions by traders to industrial associations which may be formed for the sole purpose of scientific research for the benefit of the various trades, and the allowance would be equally applicable as regards traders' contributions specifically earmarked to the sole purposes of the research section of an adapted existing association.

In both cases the allowance would be subject to certain conditions, e. g., the association or the research section to be under Government supervision and the traders' contribution to be an out-and-out payment made from his trade profits and giving him no proprietary interest in the property of the association, etc.

In order to enable the department to hold the new fund and any other money or property for research purposes a royal charter * * * has been granted to the official members of the committee of the privy council for scientific and industrial research, under the title of the "Imperial trust for the encouragement of scientific and industrial research." The trust is empowered "to accept, hold, and dispose of money or other personal property in furtherance of the objects for which it has been established, including sums voted by Parliament to that end." The trust can take and hold land and can "accept any trusts, whether subject to special conditions or not, in furtherance of the said objects."

A substantial gift has already been made to the trust by two members of the Institution of Mechanical Engineers for the conduct of a research in mechanical engineering to be approved by the department in the hope that this example will be followed by other members of the institution.

Mr. H. Frank Heath, C. B., has been appointed permanent secretary of the new department.

ANTHRAX AS AN OCCUPATIONAL DISEASE.

Anthrax is primarily a disease of animals such as cattle and sheep, but is transmitted to men in a number of industrial pursuits, including among its victims hide and skin handlers and other tannery employees, longshoremen, woolsorters, hair workers, brush makers, farmers, ranchmen, and veterinarians. The relative importance of this disease is indicated by the fact that for every five deaths from lead poisoning in the United States registration area there is one death from anthrax. A study of anthrax as related to various occupations has just been published by the United States Bureau of Labor Statistics in its Bulletin No. 205.

According to this bulletin, anthrax in the United States is frequent among animals in the lower Mississippi Valley, in the Gulf States, in the East (chiefly on the banks of the Delaware River), and in some of the Western States, and public attention has been drawn recently to human anthrax by the startling increase in the number

of cases in seaports and tannery towns in New York, Massachusetts, and Pennsylvania. Among European countries, Russia and Italy are reported to be the most seriously affected by both animal and human anthrax.

In man, contagion commonly occurs, among persons handling animal materials, through an abrasion of the skin, resulting in the so-called "malignant pustule," or "malignant edema." Cases have been caused by bites of insects and of pet animals which have fed on diseased materials, and even by spores found in shaving brushes. Woolsorters' disease or pulmonary anthrax is a less frequent but almost invariably fatal form of the malady, caused by the inhalation of dust or particles of hair or wool from diseased animals. The anthrax bacillus is one of the largest and most easily recognized of the disease-producing organisms; it is not, however, so much to be feared as a cause of the disease as the spore, which is able to survive for as long as 17 years without nutriment. This spore is easily carried about and, under favorable conditions, rapidly germinates and sets up a focus of infection.

Inoculation resulting in the malignant pustule is the most common form of anthrax. This begins with a red pimple about the size of a pin's head, which at first causes little pain. The pimple rapidly increases in size and becomes surrounded by a peculiar resilient swelling. In the center of the pustule is a black spot around which the skin rises in blisters. On the third or fourth day the lymphatic glands in the vicinity of the pustule are usually swollen and painful. The complete cycle of the disease occupies, on the average, 9 or 10 days. The necessity of prompt diagnosis and treatment for the affected part is emphasized by leading authorities.

In malignant edema, the other form of external anthrax, the pustule is absent. The swelling usually covers an extensive surface and is most frequently situated on the eyelid, neck, or forearm. In severe cases there is redness, vesication, and a gangrenous appearance of the skin. This form is much less frequent than the pustule.

Internal varieties of anthrax, including pulmonary anthrax or woolsorters' disease, are comparatively rare, but are usually fatal. Symptoms are not characteristic and diagnosis is very difficult.

The bulletin traces the history of anthrax in the United States from the first record of human cases, in Philadelphia in 1834, down to the present day, showing its rapid increase in comparatively recent years. During the six years from 1910 to 1915 there were 132 deaths from anthrax officially reported in the United States registration area. In about 50 of these cases the connection between occupation and disease was obscure, while 77 represented occupations where the menace of anthrax is well recognized. Of the latter, 23 were tannery employees, the largest occupational group among the

fatal cases; 21 were farmers, ranchmen, or women living on farms; 13 were transportation workers (including 9 longshoremen); 6 worked with wool, hair, or bristles; 2 were rag handlers in paper mills; 2 were liverymen; 1 was a veterinarian; and 9 were laborers, probably in one or another of the foregoing branches of industry. There were five deaths of infants from anthrax.

In the absence of comprehensive records it is difficult to ascertain the proportion of fatalities among anthrax cases, but from hospital records, which are the most valuable data available for this purpose, it is estimated that about one in every five cases is fatal.

In the field of prevention this country has lagged far behind European countries, although 24 States now require the reporting of cases of anthrax. Two States authorize workmen's compensation for anthrax arising in the course of employment, and in a few of the States compensation payments have been made for anthrax contracted as the result of a definite injury received while at work. Laws and regulations for the suppression of animal anthrax have been enacted in all the large stock-raising sections of the country. The prevention of anthrax among industrial workers has received very little attention. There has been a tendency to relax the precautions governing the importation of animal materials, so that, so far as human anthrax is concerned, the situation appears to be growing worse instead of better, and much more energetic action than has been taken will be needed if this occupational disease is to be stamped out.

The awarding of compensation to victims of occupational anthrax has made very little progress in this country, Massachusetts being the only State that is consistently following this principle.

The bulletin contains an account of the prevalence of anthrax in European countries and a statement of the regulations in force there to control the disease.

EFFECT OF INDUSTRIAL CONDITIONS UPON THE EYESIGHT OF MUNITION WORKERS IN GREAT BRITAIN.¹

A considerable increase at the hospitals in the number of eye cases among munition workers in Great Britain led the health of munition workers committee, which was appointed by the minister of munitions "to consider and advise on questions of industrial fatigue, hours of labor, and other matters affecting the personal health and physical efficiency of workers in munitions factories and workshops," to make a special inquiry into the causes thereof, with a view to sug-

¹ Great Britain. Health of Munition Workers Committee. Memorandum No. 15. The Effect of Industrial Conditions upon Eyesight. London, 1913. 8 pp. Price 1d. (2 cents). See also, MONTHLY REVIEW, December, 1915, p. 88; June, 1916, pp. 81-83; July, 1916, pp. 101-107; and November, 1916, p. 98.

gesting, if possible, preventive measures and methods of treatment. A brief report on the subject was submitted by the committee in October, 1916.

It was found that the increase in the number of hospital cases was due to an increase in the number of munition workers and also to their inexperience of metal and engineering works. Specifically, however, the committee discovered three chief causes of the impairment of eyesight: (1) injuries due to exposure to intense heat or industrial poisons; (2) accidents due to flying particles, etc.; and (3) eyestrain due to uncorrected errors of refraction or other causes. The first of these causes is dismissed without comment, save for a brief statement that the effects produced by poisons or heat are so slow in manifesting themselves that they may be considered as of no great consequence in their bearing upon the efficiency of the workers employed primarily in occupations incident to the war. On the other hand, accidents caused by pieces of metal flying off in lathe turning and entering the eyes appear to have increased during the war, the records of one hospital in Liverpool showing that between three and four times as many cases per annum have been treated since the war began. Many of the injuries, according to reports of surgeons, are slight in character and should give rise to no permanent damage, but there is a certain proportion of serious accidents which cause permanent injury. Some of the more grave conditions arise from infection.

Speaking of these cases, an ophthalmic surgeon in Glasgow writes: "In most instances the actual physical damage is slight, and the worker will be able to resume his duties in a few hours, or utmost in one or two days, if only the injury to the eye be promptly and skillfully treated. If, on the other hand, the injury be neglected, or if it be treated by anyone who is unskilled or careless, sepsis will almost certainly occur; and all experience teaches that infection of the wound is a far greater danger than the actual physical damage to the ocular structures. The occurrence of sepsis at once transforms a very trivial injury to the cornea into a suppurative keratitis, which may run a prolonged course, lead to more or less impairment of sight, and in serious cases even destroy the eye."

Eyestrain, broadly speaking, may be due to defects of vision or to the nature or conditions of the work. It may be accentuated, it seems, by the age, fatigue, or unsatisfactory physical health of the worker, by near-distance work, insufficient or excessive illumination, abnormal position, or long hours. Since output is dependent upon good eyesight, the committee felt that the question is not receiving adequate attention by employers of munition workers. Instances are noted of headaches and eyestrain resulting from (1) inadequate light, both artificial and natural; (2) artificial lights adequate in amount but so placed as to throw a glare on the eyes of the workers;

(3) employment of workers (whose eyesight should be aided by suitable glasses) to carry out fine work without first testing their eyesight.¹

The matter of the supervision of the eyesight of workers is regarded by the committee as very important. Its investigations disclosed that in one factory where workers were employed on a fine process involving close attention, 8 per cent had been obliged to obtain glasses since starting work, 12 per cent found sight difficult at night, another 7 per cent complained of eyestrain, and 2 per cent found eyestrain increasing in severity, while "10 per cent appeared to have latent eyestrain as shown by severe eyestrain and conjunctivitis."

The diseased conditions arising from eyestrain or accidents are numerous and include not only the presence of foreign bodies, metal dust, or steel splinters in the eye, but various forms and degrees of inflammation, ulceration, myopia, astigmatism, and visual deterioration.

There would appear to be very little reason for injuries to the eyes, either by accidents or eyestrain, because of the preventive methods that may be adopted. These consist of general measures designed to improve the physical health of the workers and so enable them to resist the effects of fatigue, and include suitable lighting of factories, the provision of canteens, and adequate time for sleep and rest. Special measures intended to avoid undue strain upon the eyesight or to reduce the liability to accidents to a minimum may include (1) testing of eyesight of operatives to be employed on close work and supplying them with glasses where necessary; and (2) guarding the eyes from flying particles of metal by the use of goggles.

The report emphasizes the careful treatment of all eye injuries, as much if not more attention being paid to slight injuries than to serious accidents because of the great likelihood of infection and its dangerous consequences.

Brief mention is made of the large amount of time lost on account of eye injuries. Thus, in 15,000 cases annually seen at the Birmingham Eye Hospital and 1,500 cases at the Coventry Hospital, the majority of all these cases being slight injuries, it is estimated that the loss of time to each man averages one-half a day, or from 500 to 700 days' work annually, as a result of these trivial accidents in one district. In another hospital it is stated that of the 100 eye cases per week coming from munition and armament factories, "each man will lose not less than 3 days from this, in most cases, preventable accident, representing 300 days' work, or, say, 40 men idle per week from this cause."

¹ So important was the question of lighting considered that the health of munition workers committee published a memorandum (No. 9) on the subject, "Ventilation and Lighting of munition factories and workshops," which was noted in the MONTHLY REVIEW for June, 1916, pp. 81-83.

**RECENT REPORTS RELATING TO WORKMEN'S COMPENSATION
AND ACCIDENT INSURANCE.**

MASSACHUSETTS.¹

At the 1916 session of the Massachusetts Legislature a joint special recess committee was appointed to investigate workmen's compensation insurance rates, and also to inquire into the possibility of more efficient accident-prevention work by the State. The committee was composed of nine members. Its report, submitted under date of February, 1917, consists of a majority report, concurred in by seven of the nine members, with a separate minority report from each of the two dissenting members.

The majority report recommends several fundamental changes in the compensation and accident-prevention systems now in effect in Massachusetts. As regards compensation, its two principal recommendations are:

1. That compensation be made absolutely compulsory for all employers of five or more persons, except employers of domestic servants and farm laborers.

The present law is an elective one. Employers refusing to elect are denied important defenses in case of damage suits, but this pressure is not sufficient to induce all employers to accept the act. In addition, the committee notes that increasing insurance rates may make it more economical for employers to take their chances under the common law even with their defenses removed.

From the decisions of the supreme judicial court of the State the committee feels that a compulsory act would be declared unconstitutional, and therefore recommends immediate steps for the adoption of the necessary constitutional amendment.

2. That all compensation insurance be carried in a single State-controlled company, but with self-insurance permitted under rigid restrictions.

The compensation act of Massachusetts, as it first came before the legislature, provided for a single insurance carrier known as the Massachusetts Employees' Insurance Association. Before enactment, however, the law was so amended as to give other incorporated insur-

¹ Massachusetts. Report of the joint special recess committee on workmen's compensation insurance rates and accident prevention, February, 1917. Boston. 88 pp. The committee consisted of three members from the senate and six from the house of representatives, as follows: Senators James F. Cavanagh, George H. Jackson, and John F. Sheehan; Representatives William W. Kennard, Essex S. Abbott, John G. Faxon, Robert T. Kent, William H. Sullivan, and Charles F. Garrity. Senator Jackson and Representative Faxon submitted minority reports opposing the majority recommendations for a single State-controlled mutual company, the former favoring a State fund like that of Ohio, the latter favoring the existing competitive system. Representative Sullivan signed the majority report, but opposed its recommendation in favor of self-insurance.

ance carriers, stock or mutual, the same privileges as the so-called "State company." The present recommendation, therefore, coincides with the original proposal regarding the concentration of compensation in a single carrier.

The committee bases its recommendation in this matter upon its belief that the present competitive system is unduly expensive without any corresponding gains. From the reports of the various carriers, as made to the State insurance commissioner, it concludes that the present stock company expense ratio is, on the average, about 40 per cent of the earned premium; that the present mutual company expense ratio is about 16 to 17 per cent; and that the expense ratio of a single company doing all the business would be, on the average, only some 12 per cent of earned premiums. This latter estimate is based largely upon study of the Ohio State fund. The committee was "strongly impressed with the advantages of the Ohio system," but is unwilling to recommend its adoption by Massachusetts through its fear that "with a State fund, managed and controlled by employees of the State, appointments would not always be made for efficiency, but would sometimes be prompted by political expediency, and the best results could not possibly be obtained."

These difficulties, it believes, would be avoided by having a "single insurance carrier, operated by business men, insuring their workmen therein, and controlled by the Commonwealth to an extent sufficient to safeguard the interests of all concerned." The control suggested is that the governor appoint the majority of the board of directors. The fact that the organization would be entirely mutual is counted upon to solve all the present difficulties regarding rates and rate making.

As regards the subject of accident prevention, the committee finds existing methods seriously inadequate. In view of the safety laws of the State, the work of insurance companies, and the efforts of many private employers, "it is somewhat disconcerting," it states, "to learn from the statistics of the industrial accident board that the number of injuries sustained by employees in this State has increased in the four and a half years during which the compensation act has been in operation." It suggests two measures in remedy:

1. That an industrial commission similar to that of Ohio be created, combining and unifying the administration of all the labor laws now divided among the industrial accident board, the board of labor and industries, the district police, and numerous other agencies.

A law of 1913 attempted to centralize accident-prevention work by providing for a joint board, composed of the industrial accident board and the board of labor and industries, to which very extensive authority was granted. The committee reports that this effort

has not been satisfactory, quoting a passage in a message of the governor to the 1916 legislature:

The operations of this joint board have not proved effective in any material degree * * *. The meeting of the joint board is held only once in a fortnight, and the statistics that have been collected relating to accidents and to occupational diseases have not even been digested and intelligent deductions drawn from them.

2. The adoption of a system of "experience" rating in fixing compensation insurance rates as an incentive to more effective accident-prevention work by employers.

There are two possible systems of merit rating: (1) "Schedule" rating, in which the rate is determined in advance upon the basis of probable hazard due to installation or lack of safety devices, safety organization, etc.; and (2) "experience" rating, in which the rate is based upon the actual accident frequency as developed by the establishment. The committee believes that experience rating is by far the more preferable system both on the ground of accuracy and justice to the employer and as stimulating every employer to prevent accidents in order to profit from the consequent reduction in his premium rates.

WASHINGTON.

The Workmen's Compensation Act of Washington was one of the earliest in this country, and was the pioneer in the principle of compulsory State insurance. This, together with the fact that the law has undergone no important changes since its enactment in 1911, makes of particular interest its experience of five years as reviewed briefly in the recent report of the industrial insurance department for the year 1916.¹

The scope of the act has remained substantially unchanged, applying by compulsion only to a specified list of employments declared to be extrahazardous. The commission is authorized to add to the list, but it reports that it has seldom exercised this authority "other than to rate and classify minor operations that were incidental to industries that were enumerated under the law." Agriculture in all its branches remains excluded, the commission holding that this "was tacitly understood at the time the act was passed." As a result such dangerous occupations as those connected with "thrashing machine outfits, hay balers, combined harvesters and thrashers" are unprotected.

Persons in employments not in the extrahazardous list are at liberty voluntarily to accept the act, and the law makes provision

¹ Washington (State), Fifth Annual Report of the Industrial Insurance Department, Olympia, 1916. 175 pp.

for thus extending the scope of compensation. However, in practice, voluntary acceptances have been extremely few. At the end of the five years of operation only 63 employers have done so. This seems to be due partly to the fact that the law fixes a uniform premium rate for all the so-called nonhazardous occupations and partly to the fact that the method of election is cumbersome. The agreement must be signed by every employee, and any new employee who succeeds to a position left vacant by a former employee who had signed the elective agreement is not within the scope of the act unless a new agreement is signed.

While, however, the number of employments under the act has remained substantially the same, the number of employers on the books of the State fund has shown a rapid increase, and the number of employees thereby brought under compensation has also shown a fairly regular growth. The following table, reproduced from the report, shows the respective numbers of employers and workers under the State fund in each of the five years, the lumber industry being shown separately because of its importance in the State. The figures for employees are apparently no more than estimates, based upon pay-roll information reported, but they may be accepted as indicating roughly the importance of the compensation system.

NUMBER OF EMPLOYERS AND EMPLOYEES UNDER THE STATE FUND IN EACH YEAR, 1912 TO 1916.

Item.	Year ending Sept. 30—				
	1912	1913	1914	1915	1916
Number of employers.....	5,750	8,891	9,980	13,020	14,257
Number of men employed in lumber industry.....	46,468	52,652	67,832	71,031	¹ 106,262
Total number of men employed in all extrahazardous employments.....	138,084	162,970	176,820	158,351	¹ 236,892

¹ These figures for the year ending Sept. 30, 1916, are estimated, the increase of accidents reported over previous years being used as a basis for such estimate.

Thus in the year 1916, a very active business year, the total number of employees subject to compensation was estimated at 236,892. There is no means of knowing how large a proportion this number is of the total number of wage earners in the State. But from estimates published in a recent bulletin of this Bureau it seems reasonable to conclude that it constitutes probably not much over 50 per cent of the total wage-earning population, leaving the other 50 per cent still unprotected by compensation.¹

The scale of benefits payable under the Washington law has also remained unchanged from the beginning. This scale is based on the

¹ Bulletin of United States Bureau of Labor Statistics, No. 203, "Workmen's Compensation Laws of the United States and Foreign Countries," 1917, p. 66.

principle of a continuing monthly pension during the whole period of disability and during the life of a widow, the minimum being \$20 a month, increasable according to size of family, up to a maximum of \$35 per month, with a flat 50 per cent increase under certain conditions. The commission, in this report, does not recommend any fundamental changes in this scale, but it does urge that where the disability is such as to require constant nursing the monthly payment should be increased by \$20 to pay for the services of an attendant. It also urges most forcibly that the law be so amended as to provide for medical service. The Washington act is one of the two in this country which make no provision for medical service, the whole expense of medical, surgical, and hospital treatment falling on the injured worker. In addition to the heavy burden thus placed upon the worker, the commission notes that the system results very often in improper treatment, with consequent prolongation of disability and increased compensation. "Hundreds of cases before the department," it reports, "demonstrate the fact that lack of such attention following injuries results in prolonged suffering and time loss, increased permanent disability and, consequently, an increase in compensation both temporary and permanent."

The State compensation insurance fund has probably been the most discussed feature of the compensation act of Washington. This fund is made up of compulsory premiums from all employers under the act, and out of it are payable all claims for compensation. What particularly distinguishes it from other exclusive State funds is the use of the "class fund" system. The contributing industries are divided into a number of classes, according to presumed similarity of risks. The premiums paid by the employers in each class are segregated in a special class fund, which is to be entirely self-supporting and which may not be drawn on to meet a deficit in another class. Originally the law prescribed 48 fixed classifications, but the rigidity of the classes proved unsatisfactory and later the commission was authorized to combine and regroup classes as the need arose.

At present there are 40 separate class funds, each with its own income and its own reserves. At the end of the fiscal year 1916 three of these class funds showed a deficit, although the total for the combined funds showed a balance of \$355,828. Two of the three deficits were considered by the commission as purely temporary, premiums called for being in process of collection. The third, in the powder-mill class, is the relic of the so-called Chehalis disaster of 1911, when a serious powder-mill explosion, causing several deaths, made a heavier demand than the class fund could bear. The largest powder company in the group flatly refused to pay the necessary contributions to meet the deficit, and pending the test of the act's constitutionality

before the United States Supreme Court the commission made no effort to enforce payment and the fund remained in arrears. The recent decision of the United States Supreme Court in favor of the act's constitutionality will probably reopen this question.¹

Another loss to the State fund resulted from frauds committed by the chief claim agent in 1915, some \$20,000 being involved. As the claim agent was bonded for \$2,000, the total loss was reduced to about \$18,000. The frauds were perpetrated by an ingenious system of forgeries. In some cases the claims were entirely fraudulent, the whole series of notices, physicians' certificates, etc., being forged by the agent and a confederate and then passed upon and allowed by the agent as chief of the claim department. In other cases the claims were genuine but were lying unpaid because the rightful claimants had not appeared to receive the warrants. In these cases the names of the claimants were forged to the voucher and the warrants issued.

In order to safeguard against similar occurrences in the future, the commission devised a check on claim payments by comparison of the signatures of physicians. All physicians in the State are now requested to file with the commission a sample of their handwriting and their autograph signature. With these on file, the reports of accidents submitted by attending physicians (and there must be such a report in every accident claim) may be checked as to handwriting and signature. Also, all physicians are now requested to mail all their reports direct to the commission. Formerly these were often turned over to the claimant or employer for mailing and opportunity thus offered for changes to be made therein.

One of the serious difficulties of the commission has been the locating of certain employers, particularly small contractors and employers of casual labor. Under the law every employer in extrahazardous work, whether casual or not, is required to contribute a fixed premium on his pay roll to the State insurance fund. But, in practice, unless the employer is actually located by the commission and the proper contribution demanded, he may entirely escape until an accident occurs to a workman in his employ. Thereupon a penalty may be imposed of three times the regular premium, but in the case of casual employers this may amount to only a few cents. The results are unfair to those employers who are in fixed business and who pay their contributions regularly. Also, a very heavy expense is imposed upon the commission in keeping traveling auditors "in constant search for small contractors, contractors from other States, and shifting enterprises." To meet this difficulty the commission urges that all employers be required to make a monthly report of their pay rolls under a heavy penalty for failure. The commission

¹ See p. 550 of this number of the REVIEW for the decision of the Supreme Court.

also reports that many subterfuges are resorted to by employers in the attempt to evade the law. One of the methods adopted is described in some detail:

During the past year many cooperative companies have been formed apparently for the sole purpose of evading the payment of contributions. The commission has consistently taken the position that all such organizations were but another method of the payment of wages and that the pay rolls of such companies should be listed.

A case in point recently presented to the commission is that of an employer who had sold some land in 10-acre tracts, retaining the ownership of the timber. Each purchaser was given a job of cutting wood at a fixed price per cord, one-half to be applied on the payment of the land and one-half to be paid in groceries. Each one of these men worked by himself and when he pleased and furnished his own tools. The owner of the land assumed no control of the men and was only interested in the results of the labor, measuring the cordwood and providing for the payment.

The question at issue was whether these purchasers of the land were employed by the other party as pieceworkers or whether they were independent operators. The department took the position that the owner of the property exercised a certain supervision over the men who were removing his timber, and held that the woodchoppers should be considered as pieceworkers and the owner of the timber held for contribution to the accident fund.

A very interesting table of the report shows the distribution of compensated accidents according to marital condition of the injured. The Washington law makes the payments in case of married workers with dependents very much larger than in case of single workers. Thus when the act was passed concern was felt by some that employers as a result might hire unmarried men to the exclusion of men with families. The fear, however, was apparently without foundation, as the detailed data, presented in the table below, indicate that the proportion of injured workmen with families has steadily increased from 1913 to 1916.

CONJUGAL CONDITION OF INJURED WORKMEN, 1913 TO 1916.

Conjugal condition.	1913		1914		1915		1916	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Single.....	6,778	54.7	6,698	53.2	5,704	51	7,467	50.4
Married.....	5,602	45.3	5,888	46.8	5,486	49	7,351	49.6
Total.....	12,380	100.0	12,586	100.0	11,190	100	14,818	100.0

The number of accidents reported to the commission shows considerable fluctuation from year to year, with a very marked increase of from 13,162 to 19,494 in the latest year, 1916. This is attributed solely to the increase in industrial activities. Owing to lack of exact data regarding the number of workers and the period of their em-

ployment it is impossible to compute accurate accident rates, and thus impossible to learn whether the compensation act itself or the accident-prevention work of the State bureau of labor has been effective in reducing the rate of accident occurrence.

The following table, summarized from a table of the report, shows the number of accidents reported, claims for compensation, and disposition of those claims, for each of the five years the act has been in effect.

COMPARATIVE STATEMENT SHOWING THE NUMBER OF ACCIDENTS REPORTED AND CLAIMS ADJUDICATED DURING EACH FISCAL YEAR, ENDING SEPTEMBER 30, 1912 TO 1916.

Item.	Fiscal year ending Sept. 30—					Total to Sept. 30, 1916.
	1912	1913	1914	1915	1916	
Accidents reported:						
Nonfatal.....	11,617	15,965	14,765	12,947	19,180	74,474
Fatal.....	279	371	324	215	314	1,503
Total.....	11,896	16,336	15,089	13,162	19,494	75,977
<i>Claims adjudicated.</i>						
Claims allowed (total temporary disability; full and final award).....	6,356	12,180	12,584	11,190	14,818	57,128
Fatal accidents.....	257	319	347	210	296	1,429
Total permanent disability (pensions).....	2	13	13	9	22	59
Claims rejected (for cause).....	378	747	807	570	1,016	3,518
Claims suspended:						
(A) Claims not made by workmen; injuries trivial.....	1,552	2,989	1,914	1,224	1,693	9,372
(B) Unable to locate claimants, etc.....	348	519	356	259	291	1,773
Monthly payments (continued monthly account of temporary disability still existing).....	314	471	422	210	574	574
Partial payments.....	33	196	89	22	38	38
Claims in process of adjustment.....	953	462	469	496	947	947
Files incomplete.....					1,139	1,139
Total.....						75,977

Under the Washington law the whole cost of compensation payments is borne by the employers through their contributions to the State fund. All administrative expenses, however, are borne by the State. The ratio of the cost of administration to the total premiums collected has varied from year to year, depending principally upon the amount of premium paid for the period covered, as shown in the following table:

EXPENSE RATIO FOR EACH SPECIFIED PERIOD.

Period.	Expense.	Receipts.	Expense ratio.
Oct. 1, 1911, to Mar. 31, 1913.....	\$155,000.00	\$1,703,556.90	9.10
Apr. 1, 1913, to Mar. 31, 1915.....	221,971.00	3,174,168.26	7.02
Apr. 1, 1915, to Sept. 30, 1916.....	168,581.83	1,946,232.79	8.61
Oct. 1, 1911, to Sept. 30, 1916.....	545,552.83	6,823,957.95	7.99

WORKMEN'S COMPENSATION CASES IN THE UNITED STATES SUPREME COURT.

Some account was given in the December, 1916, issue of the *MONTHLY REVIEW* (pp. 27, 28), of a number of cases involving the constitutionality and construction of workmen's compensation laws in the United States Supreme Court. Decisions were announced on three of these cases on March 6, involving the constitutionality of the laws of Iowa, New York, and Washington. The laws were upheld in each instance, though in the case involving the Washington statute four judges dissented, but made no statement of the grounds of their dissent. Mr. Justice Pitney delivered the opinion in each case.

The first opinion presented bore on the New York statute, the case being entitled *New York Central Railroad Co. v. White*. The employing company made the claim that the case should be determined under the Federal liability law of 1908, but as the employee had been engaged as watchman over materials for new construction work not yet brought into interstate commerce, this contention was rejected.

In this, as in the other cases before the court, the courts of last resort of the respective States had held the acts constitutional, so that no question of conflict between these acts and the provisions of the State constitutions was under consideration. However, questions under the Federal Constitution, and specifically under the fourteenth amendment thereto, remained. The principal objections interposed to the constitutionality of the New York law were the alteration of the test of negligence as the basis of the employer's liability, the abrogation of the common-law defenses, the casting of liability upon the employer without fault, and interference with freedom of contract.

As to negligence, it was held that this is merely the disregard of some duty imposed by law and is subject to change by legislative action. As to the abrogation of the common-law defenses, it was pointed out that this power belonged to the States, as had been held repeatedly by the court. The present act was considered as an effort to provide a just settlement of a difficult problem, substituting for the abrogated methods of procedure the new method attempting to reach a better solution. The fact that wear and tear of machinery is an ordinary charge upon the business was noted, together with the inherent probability of accidental injury to employees. The question was then considered as to who should bear the expense of such injuries, the pain and suffering not being transferable; i. e., as to whether certain money costs should not be borne by the industry, the same as for damaged equipment. The conclusion was reached that it was neither arbitrary nor unreasonable to fix a reasonable and definite scale by which the employer should contribute in all cases of injury, negligence being disregarded, while the employee is relieved

of the assumption of ordinary risks, receiving in such cases a definite and easily obtained compensation, but assuming losses exceeding those compensable under the prescribed scale.

As to the specific point of liability without fault it was pointed out that statutes imposing such liability have been sustained as against carriers, innkeepers, persons employing fire or other dangerous agencies, etc. It was held that the establishment of a compulsory compensation system, as provided for in the New York law, could not be deemed an arbitrary and unreasonable application of the principle of the responsibility of the superior, since the undertaking was one in which the workman served for the employer's benefit, the parties being coadventurers, the profits beyond the employee's wages going to the employer. Since an employee is subject to hazards in the employment, and the more so if he gives himself unreservedly to labor without extreme caution as to his own safety, the State may properly impose an absolute duty upon the employer to make a moderate and definite compensation in all cases of disability.

It was recognized that the act in question limits the freedom of contract in a measurable degree, but it was held that in so doing there was a reasonable exercise of the police power of the State, since the public has a direct interest in the matter of compensation for human life or limb lost or disability acquired in pursuit of a hazardous employment. Though the act imposes no rules of conduct or safety, it does contemplate "the prevention of pauperism, with its concomitants of vice and crime," which are matters affecting public welfare.

The question of classification or equal protection was not pressed but was noticed by the court as not being objectionable in the law under consideration.

The final consideration bore upon the method of securing payments, and it was held that to require security to be given in some one of the forms offered by the law was not open to criticism, since if the law itself was valid, it was proper to establish reasonable regulations as to financial ability to make payments, or otherwise to secure the compensation that might fall due. Such arrangements also did not affect the employee injuriously, so that the law in its entire bearings was found to be valid.

The Washington case (*Mountain Timber Co. v. Washington*), involved the construction of a law which, besides the provisions of the New York law, contained other features calling for separate discussion, and in particular one as to a State insurance fund. Frequent reference was made to the decision in the New York case, but so far as the establishment of a State fund is concerned, to which all employers under the act must contribute whether or not there are accidents in their establishments, independent consideration was necessary. Three main questions were involved: First, whether the act was of such

general and public moment, rather than of private and particular interest, as to furnish a just basis for such interference with personal liberty and freedom of contract as appeared in the law; second, whether the charges were reasonable, or burdensome and oppressive; and, third, whether the burden laid is fairly distributed.

It was held on the basis of the reasoning in the New York case that such laws lie within the police power of the State, so far as their principle is concerned, and it was then argued that the State itself might provide for industrial employees, suffering injury in their occupations, and their dependents, as well as for disabled soldiers and their widows and dependents; nor is it necessary that the persons aided should be reduced to extremity before the benefits could be legally provided.

As to whether or not the imposition of the tax for the insurance fund was so excessive as to constitute deprivation of liberty or property without due process of law, it was pointed out that the question of undue compensation had not been raised, and unless there was undue compensation there could not be an excessive burden on the industry. The distribution of the burden was next taken up, and the method of computing the premium rates on pay rolls was spoken of as customary in insurance practice and adopted by legislative declaration. The regulation of assessments for the various industry groups on the basis of experience was held to obviate any difficulty that might be met in regard to the statutory amount of the rates, since assessments would be made only as found necessary. Since industry as a whole is subject to hazards, it is not unreasonable that industry as a whole should bear the burden, and not merely such establishments as might furnish the occasion for individual accidents, the general welfare being best subserved by the provision of an adequate fund for indemnifying injured persons and their dependents.

The Iowa statute is elective in form, and falls, for the most part, within the limits of law set up by the New York statute, the constitutionality of which had been already upheld when the case in hand, *Hawkins v. Bleakly*, was decided. Specific provisions of the act, however, required consideration, one being the requirement that an employee rejecting the act shall indicate whether or not he has been advised so to do, and if so, by whom; and where it appears that the employer or his agent advised rejection, the employee's rejection is to be held void. This was held to be a permissible regulation in aid of the general scheme of the act, being intended for the employee's benefit, to protect him from possible coercion in the matter of his election. Another provision deprives the employer of his common-law defenses, not only where he elects to reject the act and his em-

ployee does not, but also in cases where both parties reject its provisions. This also was said to be unobjectionable from a constitutional standpoint, since all members of each class are treated alike, and there is no discrimination.

The objection that the requirement that the employer shall insure his liability was an interference with freedom of action was disposed of by pointing out that no one need insure unless he were a voluntary acceptor of the act, and as the appellant in this case had not accepted the act, he was not qualified to bring this point before the court.

By these decisions the Supreme Court has established the validity of practically every form and essential feature of the compensation laws now on the statute books of approximately three-fourths of the States of the Union. The question as to the validity of the construction of the laws adopted by the courts of New York and New Jersey with regard to interstate commerce remains undecided so far as these decisions are concerned, and there are doubtless other points that will be raised which will require the authoritative interpretation that this court alone can render. The interstate-commerce question has been argued before the court, and its decision thereon may be expected on any opinion day, but in so far as the fundamental principles of compensation laws, elective or compulsory in form, and including State monopoly of a required insurance fund are concerned, no Federal constitutional obstacle could seem to be interposed; and in view of the authoritative statement of the principles involved, which have been frequently discussed by the State courts, it may also be anticipated that legislatures will feel free to proceed with amendments and enlargements of the scope and effectiveness of the laws where they have felt hesitation heretofore.

INSURANCE MONOPOLY FOR THE OHIO WORKMEN'S COMPENSATION FUND.

Some account was given in the *MONTHLY REVIEW* of August, 1916 (pp. 60, 61), of the legal discussion as to the status of indemnity insurance companies under the Ohio laws. Certain points were then decided, including the constitutionality of section 22 of the act (sec. 1465-69), which requires every employer of five or more workmen regularly in the same business to pay into the State insurance fund the amount of premium determined and fixed by the State authorities, only self-insurers approved by the commission being excepted. Such self-insurers, however, must contribute to the surplus fund for the purpose of maintaining a guaranty for the State insurance fund.

Section 54 of the act (sec. 1465-101) was also construed, and the

fact that it did not repeal by implication section 9510 of the General Code was pointed out. As section 54 then stood, it was construed to permit the writing of insurance under the compensation law by stock companies for accidents other than those inflicted by the willful acts of the employer, his officers or agents, or by the failure of such persons to observe the provisions of safety laws.

It was announced that certain points would be decided only after further deliberation. The final decision was rendered in January of this year, when certain conclusions were announced as to the construction of this section 54, defining more strictly the limits within which insurance could be written by companies other than the State fund. These are set forth under the following heads:

A. Every such contract of indemnity of an employer for loss or damage on account of injury of an employee by accidental means or on account of the negligence of such employer, or such employer's officers, agents, or servants, shall contain a specific provision as a part of its terms for the payment to such injured employee "all such amounts for medical, nurse, and hospital services and medicines and such compensation as is provided by the act of which this section is a part for injured employees, and in the event of death shall pay such amounts as provided by said act for funeral expenses and for compensation to the dependents or those partially dependent upon such employee."

This provision of the contract has reference only to cases of injury where the injured employee elects to accept compensation for his injury directly from his employer according to the standard fixed in section 22 of the industrial commission act.

B. The contract of indemnity shall not contain any agreement to indemnify an employer for any civil liability for or on account of the injury to his employee by the willful act of such employer, or any of such employer's officers or agents, or the failure of such employer, his officers or agents, to observe any lawful requirements for the safety of employees.

This provision of the contract has exclusive reference to cases of injury where the injured employee does not elect to receive as compensation for his injury either the judgment or award of the industrial commission sitting as a board of awards, or from his employer direct, but elects to and does exercise the right to enforce his cause of action in the courts against his employer.

C. No contract of indemnity shall be written in behalf of an employer of five or more employees for loss or damage nor an agreement to indemnify an employer for any civil liability on account of an injury of an employee by accidental means or on account of the negligence of such employer, his officers, agents, or servants, whether the negligence be that of the willful act or failure to comply with lawful requirements of the safety of employees or negligence of any other kind or character, if such employer is not a contributor to the compensation fund or has not legally exercised the option of carrying his own insurance under section 22 of the act.

The court concluded with awarding a judgment terminating the right of indemnity insurance companies to write policies other than those indicated in the foregoing opinion. The entire subject is disposed of, however, by an amendment of date of February 19, 1917, repealing the original section 54 (sec. 1465-101) and substituting

therefor the following, which came before the legislature as a bill proposed by initiative petition:

SEC. 1465-101. All contracts and agreements shall be absolutely void and of no effect which undertake to indemnify or insure an employer against loss or liability for the payment of compensation to workmen or their dependents for death, injury, or occupational disease occasioned in the course of such workmen's employment or which provide that the insurer shall pay such compensation, or which indemnify the employer against damages when the injury, disease, or death arises from the failure to comply with any lawful requirement for the protection of the lives, health, and safety of employees, or when the same is occasioned by the willful act of the employer or any of his officers or agents, or by which it is agreed that the insurer shall pay any such damages. No license or authority to enter into any such agreements or issue any such policies of insurance shall be granted or issued by any public authority.

The obvious effect of this amendment is to secure to the State fund a complete monopoly of insurance under the workmen's compensation law of the State, and also to forbid employers insuring any risks other than those provided for by this act.

WORKMEN'S COMPENSATION IN THE UNITED STATES AND FOREIGN COUNTRIES.

In the rapid spread of workmen's compensation legislation in this country the fact is often overlooked that many of the laws adopted are far less comprehensive than their mere titles would indicate. Because 35 States and Territories, with some 75 per cent of the employed population, have adopted such laws it is frequently assumed that a similar proportion of the wageworkers of the country are now fully and properly insured against the loss and suffering occasioned by industrial accidents. That this is not true is emphasized in Bulletin No. 203 of the United States Bureau of Labor Statistics entitled "Workmen's Compensation in the United States and Foreign Countries."

The bulletin presents a detailed comparison of the principal features of the various State compensation laws. The comparison brings out most striking differences, particularly as regards the proportion of workers covered and the scale of compensation benefits. No State compensation act covers all employees. In the first place most of the acts are elective. Employers who do not accept are penalized, but in spite of this there are always some who refuse to elect. In the second place, all of the acts purposely exclude certain classes of employees. Thus agricultural workers, domestic servants, and casual employees are almost everywhere excluded. Also there is an important group of acts which apply only to certain employments declared to be especially hazardous, although in practice they may be no more hazardous than others not included. Again, a con-

siderable number of acts apply only to employers having less than a certain number of employees, the minimum being in one case as high as 11.

The result of these limitations and exclusions is to restrict the benefits of compensation very often to only a rather small fraction of the total number of workers. A rough estimate of the proportion covered in each State, based on the liberal assumption that election has been made by all employers affected in States having elective laws, shows that in only two instances, New Jersey and Hawaii, do the acts include at best as many as 90 per cent of the total workers, and only seven States cover 80 per cent or over. One covers less than 20 per cent and nine less than 50 per cent.

Similarly striking are the differences between the several acts as regards the benefits paid in case of injury. A few extreme instances may be cited. Thus, in the case of a fatal injury occurring in the State of Oregon the widow and children may receive in total as much as \$13,480, whereas in Vermont the maximum would be \$1,830, and under the Oklahoma act no benefits at all are paid in case of death. For loss of a hand the Alaska act allows as much as \$2,400, while the maximum for the same injury in Colorado is but \$832. Again, in Oregon and Porto Rico cash benefits are paid for injuries of however brief duration, whereas in Colorado no cash benefits are paid for disabilities of less than three weeks. Further, Washington and Wyoming, at one extreme, make no provision for medical service, this expense falling entirely on the worker; whereas, at the other extreme, in several States, as Connecticut, Massachusetts, and California, payment may be made for all necessary medical and hospital service, without limit as to time or amount.

The words "accident" and "injury" have different meanings in different places. Generally speaking, the practice has been to limit compensation to accidental injuries in the strict sense. There is a tendency, however, to broaden the term so as to take in the more subtle injury of occupational diseases, such as lead poisoning, wood alcohol blindness, and anthrax. Massachusetts is the only State in which this has been regularly done and approved of by both the administering board and the courts. But the California act was recently amended so as to include occupational diseases, and in certain other States the commissions have so interpreted the law only to be overruled by the courts.

It appears, therefore, that practically all of the State compensation acts now in force need enlarging and liberalizing before they can be regarded as furnishing adequate protection to the whole body of wage earners. This, the bulletin points out, has been a general tendency of recent amendments. In no case has a compensation system once introduced been repealed. But in a number of instances in-

ferior acts have been superseded by better ones, and in all cases where the courts have held particular acts unconstitutional the States affected have proceeded to enact new laws that would meet the necessary legal tests and, if no other way offered, State constitutions have been amended.

At the beginning of 1917 there were 35 compensation laws in effect in the United States, including those of Hawaii, Alaska, and Porto Rico, but not including the new Federal act of 1916, which was not yet in operation, due to delay in the appointment and confirmation of the commission. Of the 17 noncompensation States, 10 are in a single group of Southern and south Central States—Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Arkansas, and Missouri. The other seven are the two Dakotas; the three mountain States of Idaho, Utah, and New Mexico; Delaware and the District of Columbia. In several of these, investigating commissions are now at work and in some it is probable that compensation acts will be adopted at the current sessions of their legislatures.

In addition to reproducing in full the text of the American laws now in force the bulletin summarizes the important features of the laws of foreign countries. It also presents a comprehensive analysis of the decisions of the courts and of the various administrative commissions

WORKMEN'S COMPENSATION LAW OF CHILE.

On December 30, 1916, there was published in the Diario Oficial of Chile a law providing for the compensation of accidental injuries to workmen in designated lines of employment, the act to become effective six months after such publication. The industries and trades covered include mining and metallurgical work; the manufacture or use of explosive, inflammable, or poisonous or otherwise injurious substances; loading and unloading freight; employment on public works—railways, harbor work, roads, bridges, aqueducts, sewers, and similar undertakings; transportation by land, sea, or internal waterways; in general, employment in factories and workshops where other than hand power is used, and agricultural work of like nature. Accidents due to force majeure, or not arising out of the employment, and those intentionally caused or due to criminal attempts or serious offenses of the injured person or an outsider are excluded.

Medical aid and supplies are to be furnished until earning capacity is restored or a permanent disability is determined. If death ensues, an allowance for burial expenses up to 100 pesos (\$36.50) is prescribed.

The compensation for temporary disability is one-half the wages from the date of the accident until ability to resume work; for per-

manent total disability, the same amount during life; and for permanent partial disability, an indemnity not exceeding two years' earnings. Death benefits are payable to the widow, widower, legitimate children, or recognized natural or illegitimate children of the deceased employee. The widow or dependent widower (if the marriage status existed at the time of the accident) receives 20 per cent of the wages of the deceased until death or remarriage. Children under 16 years receive benefits until that age, 20 per cent if one child or 30 per cent if more than one, where a parent survives, or 50 per cent if there is no surviving parent, the amounts being distributed equally among the children.

Annual earnings in excess of 2,000 pesos (\$730) are excluded from consideration, and a minimum basis of 600 pesos (\$219) is fixed by the act. Employers may insure their risks, give a mortgage to secure payments, or deposit a suitable capital in a State savings bank. Third persons liable for an injury may be proceeded against at common law; suit may also be brought against an employer where fraud or grave fault can be proved against him.

Administration is in the hands of the civil judges, under regulations to be issued by the President of the Republic.

ADMINISTRATION OF LABOR LAWS IN THE PACIFIC STATES.

Irregular employment is emphasized as the most striking labor characteristic of the Pacific States in a report dealing with labor laws and their administration in Washington, Oregon, and California, just issued by the United States Bureau of Labor Statistics (Bulletin No. 211). Most of the important industries, such as lumber, fruit growing, construction work, fruit and fish canning, are highly seasonal. In the winter months one-quarter at least of all the workers, and in some sections a much larger proportion, are without jobs or the possibility of getting jobs. In California alone there are some 20,000 "floaters," workers with no fixed residence, constantly wandering from place to place.

The demoralizing effect of these conditions has only recently come to be regarded as a matter of possible State concern, and as yet State efforts at remedy have been rather limited. Washington, in 1915, abolished all private employment agencies because of the sins of many of them, but it did not provide any substitute system. Oregon has done little or nothing. The California Legislature, in 1915, made an important beginning by the creation of a system of free State employment offices. But it recognized that at best such offices could do no more than bring together the worker and the job, whereas the major problem was the fact that at recurrent periods there are

vastly more workers than there are jobs. With this larger problem in mind, the legislature provided for extensive investigations and has now under serious consideration such far-reaching measures as social insurance and the encouragement of land colonization through the breaking up of the immense speculative land holdings now so prominent in that State.

A by-product of the seasonal, shifting industry of the Pacific coast is the widespread use of labor camps. These camps are almost universal in logging operations and construction work, where the roving character of the business makes necessary the housing of the labor force in temporary quarters. They are also not uncommon among lumber mills, canneries, and many agricultural employments, such as hop picking. Probably as many as 100,000 workers on the Pacific coast, including a number of women and children, live the greater part of the year in camps of various kinds. Some of these camps are well maintained, but the normal tendency is for them to be of the flimsiest construction, insanitary and morally degrading. California is making serious effort to improve the character of its numerous labor camps. Strict sanitary regulations have been adopted and supervision placed in the hands of the Immigration and Housing Commission. Washington and Oregon have as yet done little in this matter.

The exploitation of labor through nonpayment of wages is in no way limited to the Pacific coast, but conditions there are favorable to its existence—the casual, seasonal character of so much of the work, a large body of immigrant labor, ignorant of their rights and often fearful of the law, the constant shifting of workers from job to job, and the location of much of the work in isolated districts. That the evil is widespread is evident from the experience of the several State bureaus of labor in handling wage complaints. Thus, the California bureau, in a three-year period, received over 12,000 complaints from workers and succeeded in making collections in some 8,000 cases, the total amount collected being no less than \$171,000.

In the attempt to protect the worker against such wage losses all three of the States have enacted laws requiring prompt and honest payment of wages. That these have been only partially successful is due, in part, to defects in the laws themselves, but still more to the fact that the basic evil remains, namely, that a large body of workers, unaided and unadvised, is unable to avail itself of the benefits of such legislation. With very few exceptions no special provision was made for the enforcement of the wage laws. To the extent that active enforcement has been undertaken it has been by an assumption of jurisdiction on the part of the State bureaus of labor, none of which has any adequate authority or equipment for this kind of work.

In many highly important forms of labor legislation the Pacific States have been pioneers in this country. This is particularly true of laws regarding the employment of women. As early as 1913 there was created in each of these States an industrial welfare commission, with authority to determine what particular regulations are necessary for the health of women and children in industry, and thereupon to issue such regulations as orders with the force of law. This authority covered wages, general working conditions, and, except in Washington, hours of labor. These commissions thus become of dominant importance in determining the attitude of their States toward the labor of women and children, with power virtually to write the laws upon these subjects. This power has already been extensively exercised in Washington and Oregon. The Washington commission has fixed minimum wage rates for women and children in practically all industries. The Oregon commission has gone further and also fixed the maximum hours of labor. It is interesting to note that the minimum wage scale thus fixed by the commissions in two adjoining and economically similar States are rather widely different. The Washington scale varies from \$8.90 per week in factory work to \$10 per week in stores and offices, whereas the Oregon scale varies from \$8.25 for all employments in small towns to \$9.25 for stores and offices in the city of Portland.

The principle of workmen's accident compensation also had an early development on the Pacific coast, the Washington act being the first absolutely compulsory act in this country, and also the first to provide for State-managed insurance. The compensation acts of the three Pacific States as now in force are of entirely different administrative types, and also differ rather widely as to the benefits offered and the number of workers covered. On the whole, the Oregon act is the most liberal in its awards for injuries. There is no waiting period required, medical service up to \$250 per case is allowed, and monthly pensions of from \$30 to \$50 are granted for the whole period of disability, and, in fatal cases, for the life of dependents. On the other hand, the California act is the more liberal as regards scope. It covers all personal injuries, whether of accident or disease, whereas the Washington and Oregon acts are limited to accidents, in the narrow sense of the word. Also it applies to a much larger proportion of the workers of the State. Thus the Washington act applies only to extrahazardous employments and is estimated to cover not much over 50 per cent of the workers in the State. The Oregon act also applies only to hazardous employments and covers considerably less than 50 per cent of the total wage earners. The California act is compulsory upon all employments except agriculture and domestic service, and covers between 75 and 80 per cent of the total workers in the State.

The report estimates that the annual expenditures for the enforcement of the State labor laws amount to about \$144,000 in Washington, \$105,000 in Oregon, and \$314,000 in California. These amounts are roughly equivalent to 10 cents per capita in Washington, 14 cents in Oregon, and 11 cents in California. And if consideration be limited to the part of the population which is gainfully employed these per capita figures would be slightly more than doubled—that is to say, in Washington 22 cents per person employed, in Oregon 31 cents, and in California 24 cents.

OPERATION OF THE MINIMUM-WAGE LAW IN THE STATE OF WASHINGTON.

Eleven States of the Union now have laws that in some degree advance the standards of hours of labor and wages paid to women and children. Among these is Washington, where the minimum-wage law, effective on June 12, 1913, is administered by the Industrial Welfare Commission which has extended its provisions to the six leading industries, in which approximately 75 per cent of the women and children employed in the State are found.¹ In its second biennial report, for the years 1915 and 1916, the Commission states that the period covered "has been one of practical demonstration of the law, of its principles and standards, which thus far have proven helpful in raising the general standard of conditions that surround those who toil for wages. Further extensions are contemplated, and it is both desired and expected that the next biennial period will witness the extension of the beneficial effects of the law to every occupation and industry coming under the jurisdiction of the Commission within the confines of the Commonwealth."²

This report of the Welfare Commission gives in detail the results of a somewhat extended survey of the operation of the minimum-wage law in Washington. In making this survey it was necessary for the Commission to keep constantly in mind one important point, namely, what is necessary properly to care for the maintenance of a woman, to keep her in comfort and decency, and therefore in good health; "it is such considerations as these that cling about the question of the minimum wage; in fact, it is all there is to the question." Therefore, much attention was given to the cost of living at the time the latest estimates were made—December, 1914. At that time the average annual and weekly expenditures of a self-supporting woman working in each specified industry were as shown in the following

¹ Mercantile, factories, laundries and dye works, telephone and telegraph, hotels and restaurants, and offices.

² Washington. Second Biennial Report of the Industrial Welfare Commission, 1915-16. Olympia, 1917. 251 pp.

table, in which is also given the minimum wages subsequently fixed applicable to workers over 18 years of age and to minors.

AVERAGE ANNUAL AND WEEKLY EXPENDITURES OF SELF-SUPPORTING WOMEN IN DECEMBER, 1914, IN SIX SPECIFIED INDUSTRIES COVERED BY THE WASHINGTON MINIMUM-WAGE LAW, TOGETHER WITH THE MINIMUM WAGE APPLICABLE TO EACH INDUSTRY.

Industry.	Annual expenditure.	Weekly expenditure.	Minimum wage. ¹	
			Over 18 years.	Under 18 years.
Mercantile.....	\$520.00	\$10.00	\$10.00	\$6.00
Factory.....	462.80	8.90	8.90	6.00
Laundry and dye works.....	468.00	9.00	9.00	6.00
Telephone and telegraph.....	468.00	9.00	9.00	6.00
Hotels and restaurants.....	2 468.00	2 9.00	2 9.00	2 7.50
Office occupations.....	520.00	10.00	10.00	7.50

¹ Based on an 8-hour day and a 6-day week.

² Except for waitresses. When lodging is furnished, not more than \$2 per week may be deducted; when board or meals are furnished, not more than \$3.50 per week may be deducted; when both board and lodging are furnished not more than \$5 per week may be deducted.

³ The minimum for those under 16 years of age is \$6.

Where the wages received so nearly approximate living costs the Commission very pertinently asks:

What of the future if there be no provision for the emergencies that may arise from time to time? * * * What can be said of a condition of servitude such as this that provides merely, and but meagerly, for the pressing needs of the individual from day to day.

At the time the Commission fixed the minimum wage in these industries it also required establishments to provide proper ventilation and heating and sanitary toilet facilities; prohibited the employment of females under 18 years of age later than 7.30 p. m. (9 p. m. in telephone and telegraph offices), except in offices and hotels and restaurants; established a lunch period of not less than one hour for mercantile, telephone and telegraph, and office workers; and ordered establishments employing females "to maintain adequate facilities and arrangements so that such employees may obtain rest when in a state of fatigue or in case of illness, such requirements being demanded for the health and morals of such employees."¹

Under the law the Commission is empowered to issue licenses to applicants authorizing their employment at less than the established minimum wage. This, it was found, presented a difficult problem, which was met in the first place by a decision to limit the number of apprentices that would be allowed each establishment, thus providing for the beginners and protecting the experienced workers. The next step was determined by arranging for a beginning wage at a reason-

¹ This order was not entered in the case of laundries, hotels and restaurants, and offices, although clean and sanitary facilities were specifically required to be furnished for laundry and hotel and restaurant workers.

able figure, then providing a sliding scale of compensation which would take into consideration the nature of the particular occupation involved, as to whether skilled or unskilled, thus advancing the learner step by step, at intervals varying from one month to six months, until she should reach the full minimum wage. Under this system, in the period June 27, 1914, to December 1, 1916, 7,997 licenses were issued, the largest number, 34.2 per cent, being for work in factories; on December 1, 1916, 2,328 licenses were in force, 36.7 per cent being for work in factories. Of 46 licenses issued because of physical disability, June 27, 1914, to November 20, 1916, nearly one-third of the applicants had passed their fiftieth year.

It appears from the report that in the matter of law enforcement the Commission has been quite effective in prosecuting cases in the settlement of which other means have failed. This has included the collection of wages due through underpayments, and "while its functions are not those of a collection agency, no opportunity has been neglected to see that right and justice is done in this way." During three years 214 cases of underpayment of wages were settled out of court and 10 cases in court, 11 were pending at the time the report was prepared. The 214 cases involved a total of \$6,263.61, or an average of \$29.27 each, and the court cases amounted to \$423.18, or an average of \$42.32 each. The amount due in the other 11 cases is \$1,274.98.

The most interesting part of the report gives the results of an inquiry into the working of the minimum-wage law, with special reference as to whether it had led either to a reduction in the number of women employed or to a reduction of wages for those previously getting more than the minimum. Question blanks were sent to all employers in the six industries for which minimum-wage standards had been declared, asking how many women in the establishment under consideration had been displaced when the minimum wage came into effect and how their places had been filled. Also, the employer was asked to state how many males and how many females had been regularly employed and what was the average wage of the females during each half year from the beginning of 1913 to the end of 1915. This covered approximately 18 months before and 18 months after the minimum wage went into effect in the leading industries.

It was not compulsory upon employers to answer these questions, and unfortunately many of them preferred not to do so. The extent to which the replies were representative varied with the industry. The first six months covered by the inquiry was so near the time at which the census was taken that a comparison between the two sets of figures may fairly be made. The census classifications do not

coincide entirely with those of this report, but, roughly, the following table shows what proportion of the female workers in the various industries were covered by the replies:

NUMBER AND PER CENT OF FEMALE WORKERS IN SPECIFIED INDUSTRIES.

Industry.	In specified industry in 1910. ¹	In 1913 in establishments covered.	
		Number.	Per cent.
Mercantile.....	3,371	1,382	41.0
Manufacturing.....	7,242	297	4.1
Laundry and dye works.....	1,555	92	5.9
Telephone.....	1,550	1,351	87.1
Office.....	9,680	135	1.4
Hotels and restaurants.....	2,315	101	4.3

¹ Thirteenth Census of the United States, 1910, Vol. IV, Occupation Statistics, p. 529. The census figures given above are for laundry workers only; those for office occupations represent both those given as in clerical occupations and as clerks in stores; the figures for hotel and restaurant workers are for waitresses only.

Evidently the replies as to the mercantile and telephone employees are the only ones covering a sufficient proportion of the State's workers to have much significance. The others have a certain interest, however, as representing the testimony of employers as to the working of the law. The total number of employers or firms answering was 107, of whom only 13 reported the discharge of any female employee as a result of the law. Twenty-one women or girls were discharged by these employers. The places of six of these were filled by men or boys, the places of six more by other women, the employer undertook the work himself in one instance, in six the place was left unfilled, and in two no answer was given as to what was done.

Apart from these statements the data given below show plainly that in the establishments covered there was no general discharge of female employees, nor does there seem to have been any tendency to cut down wages to the minimum allowed by the law. Comparing the figures for the last six months before the minimum wage became effective in any industry¹ with those for the last six months covered by the report, it appears that the number of female employees had increased in all but two of these industries. The laundry and dye works establishments reported a falling off of 9, and those reporting on office occupations, a falling off of 10 in the total number of female employees. The telephone exchanges in small towns and country districts reported a falling off of 3, but this was more than offset by an increase of 17 in the exchanges of the three large cities. As to wages, the average amounts reported for the two periods were as follows:

¹ The first minimum-wage determination became effective June 27, 1914. The six months taken for comparative purposes includes, therefore, as far as mercantile establishments are concerned, three days of its operation.

AVERAGE WEEKLY WAGES IN FIRST SIX MONTHS OF 1914 AND IN LAST SIX MONTHS OF 1915.

Industry.	First six months of 1914.	Last six months of 1915.
Mercantile.....	\$11.95	\$12.47
Manufacturing.....	10.18	10.40
Laundry and dye works.....	8.15	8.50
Telephone industry:		
Seattle, Spokane, Tacoma.....	9.81	10.33
Other exchanges.....	7.75	9.04
Office occupations.....	13.70	13.96
Hotels and restaurants.....	9.96	10.00

It must be borne in mind that these figures relate for the most part to groups too small to be taken as indicative, but in spite of this there is a certain significance in the fact that in not one instance is there a decrease in the average wage. It is even more significant that the greatest increases are found in the two industries reporting upon the largest number of employees—the mercantile and the telephone industries.

The answers relating to the employees of retail stores cover a sufficient number of workers to be given more detailed attention. Twenty-seven employers or firms answered. The smallest establishment represented had but one woman employee, the largest had 640. The average wage of the female employees for each of the six half-year periods was as follows:

First half of 1913.....	\$11.46
Last half of 1913.....	11.81
First half of 1914.....	11.95
Last half of 1914.....	12.35
First half of 1915.....	11.91
Last half of 1915.....	12.47

The minimum wage became effective at the close of the first half of 1914. The wage level thereafter is distinctly higher than before, in spite of the fact that for the first half of 1915 the average sinks a little below that for the first half of 1914. Wages had been rising from the beginning of 1913, so that the higher level at the close of the period covered can not be attributed wholly to the working of the minimum wage. It is evident, however, that the adoption of the minimum wage did not check the tendency already manifested.

As to the effect of the minimum wage on the employment of women, the situation is not so clear. The last half of 1914, the first six months after the minimum wage became obligatory, shows fewer women employed than the last half of 1913, and the last half of 1915 shows a further decline from the standard of 1913. Even though there were no general discharge of female employees as a result of the adoption of the minimum wage, it might prove harmful to them

in a less direct way. The women already employed might be retained, but as the need for new workers arose the employer might give the preference to men, to whom the minimum-wage legislation does not apply. If this were done, no women would be discharged, and yet women would form progressively a smaller proportion of the total force. The following table shows by half-year periods the total number of male and of female employees and the percentage women form of the total force in the establishments covered by the employers' replies:

NUMBER OF MALES AND FEMALES REGULARLY EMPLOYED AND PER CENT FEMALES FORM OF TOTAL EMPLOYEES.

Period.	Males.	Females.	
		Number.	Per cent of total force.
First half of 1913.....	939	1,382	59.5
Second half of 1913.....	1,085	1,624	59.9
First half of 1914.....	1,021	1,423	58.2
Second half of 1914.....	1,079	1,519	58.5
First half of 1915.....	977	1,324	57.5
Second half of 1915.....	1,059	1,462	58.0

It would be rash to draw any decided conclusions from these figures without much fuller knowledge of the business changes during the three years covered, which may account for the fluctuations shown above, and also of the make-up of the force, and of the classes in which changes occurred. All that can be said is that these figures seem to indicate a slight decrease in the proportion of women employed. It is quite true that the first half year after the adoption of the minimum wage—the second half of 1914—shows a slightly larger proportion of women than the preceding six months; but this is only in accord with what seems to be the rule throughout the three years studied, that the second half of a year shows more female employees, absolutely and relatively, than the first. For the two succeeding six-month periods the proportion of women employed does not rise quite to the level of the first half of 1914 and is distinctly below the proportion of 1913.

In addition to the questionnaire conducted among employers, the commission made an investigation among the women and girls employed by retail stores, obtaining schedules from 2,587 adult employees and 426 apprentices and minors. Of the adults, 31 per cent claimed that they had been benefited by the minimum-wage law, 1 per cent thought the law had kept them from getting increases, and 48 per cent felt that the law had made no difference to them in either way. The remainder gave no information on the subject. Of the

812 whose wages had been raised as a result of the law, 159 had received an increase of \$1 or less per week; 168 an increase of from \$1.25 to \$2, inclusive; 140 an increase of from \$2.25 to \$3, inclusive; 101 an increase of from \$3.25 to \$4, inclusive; and 27 an increase of \$4.25 or over; 217 did not report the amount of their increase. Among the apprentices and minors, 14.6 per cent said that they had been benefited by the law, 0.2 per cent claimed that it had operated to keep their wages down, and 5.6 per cent thought it had made no difference either way; the great majority gave no information on this point.

Inquiry among the whole 3,013 women and girls covered in this investigation brought out reports of 58 girls who had lost their places as a result of the minimum-wage law. Of these, 14 were known to have secured other places.

The investigation among the employees brought out another point of interest. It has been feared that employers might take advantage of the provisions concerning apprenticeship to defeat the ends of the law, employing apprentices largely, and as soon as they had been at work long enough to claim the minimum wage, discharging them and taking on new learners. On this point the report states:

A mercantile establishment is allowed apprentices to the extent of 17 per cent of the total number of adult females employed, whereas above tables show that the apprentices and minors combined constitute only 14.1 per cent, or 2.9 per cent less than that allowed. It is therefore evident that some establishments are not employing as many apprentices as the law permits.

Summing up the situation, then, as to the effect of the minimum-wage law on female employees of retail stores, there is abundant evidence from both employer and employee that it has worked to increase the wage level and that there has been no tendency to make the minimum the standard wage. It is also evident that the adoption of the minimum wage has not led to any general or widespread discharge of women nor to the substitution of apprentices and minors for adult women. Whether or not the law has tended to make employers prefer to take on male rather than female employees as new help is needed is not certain; there are some indications that such is the case, but the data from which these are drawn do not cover a long enough period nor a sufficient number of employees to be conclusive.

In addition to gathering information as to the effect of the minimum-wage law, the investigation among retail store workers collected data on a number of points relating to the workers themselves. Of the total number questioned, 85.2 per cent were native born, 9.9 per cent foreign born, and for 4.9 per cent no information on this point was obtained. The age division was as follows:

NUMBER AND PER CENT OF EMPLOYEES IN SPECIFIED AGE GROUPS.

Age group (years).	Number.	Per cent.
Under 18.....	247	8.2
18 to 21, inclusive.....	539	17.9
22 to 25, inclusive.....	635	21.1
26 to 30, inclusive.....	372	12.3
31 to 40, inclusive.....	451	15.0
Over 40..... ¹	1,760	25.5
Total.....	3,013	100.0

¹ This includes those whose age was not given, these mainly consisting of "elderly women not caring to state their age or out of respect by the investigator were not questioned."

The age distribution here shown differs widely from that found in similar studies in eastern cities. Of 1,154 retail store employees in Boston in 1914, for instance, 23.4 per cent were under 18 years, 39.7 per cent were 18 but under 25 years, and only 8.9 per cent were 40 or over.¹ In New York State, among 30,526 women and girls employed in retail stores, 5 per cent were under 16 and 35 per cent 16 but under 21.² The higher age level may be in part explained on the ground that the Washington group is predominantly native born.

The wage distribution was as follows:

NUMBER AND PER CENT OF EMPLOYEES IN SPECIFIED WAGE GROUPS.

Wage group.	Number.	Per cent.
Apprentices and minors:		
Receiving \$6 or less.....	292	9.69
\$6 to \$7.50.....	115	3.82
Over \$7.50 but under \$10.....	19	.63
Total, apprentices and minors.....	426	
Adults:		
\$10.....	1,392	46.20
\$10.50 but under \$15.....	634	22.70
\$15 but under \$20.....	341	11.31
\$20 and over.....	156	5.17
Not reported.....	14	.56
Total.....	3,013	100.00

The largest single group is that receiving the \$10 a week demanded by the minimum-wage law, but nearly as large a proportion (39.18 per cent) are receiving more. As compared with eastern conditions, the wage level seems high. In the group of Boston store employees already referred to only 14.3 per cent had wages of \$10 or over per week, while 41.5 per cent received under \$7 a week.³ Among 15,716 saleswomen in New York stores 72.5 per cent received under \$10 a week and 47.3 per cent under \$7.50.⁴

¹ Unemployment among women in department and other retail stores in Boston, United States Bureau of Labor Statistics Bulletin No. 182, p. 33.

² Fourth Report of the New York State Factory Investigating Commission, 1915, Vol. II, p. 55.

³ Unemployment among women in department and other retail stores in Boston, United States Bureau of Labor Statistics, Bulletin No. 182, p. 26.

⁴ Fourth Report of the New York State Factory Investigating Commission, 1915, Vol. II, p. 64.

The following statement shows the grouping of the Washington employees with regard to experience:

NUMBER AND PER CENT OF EMPLOYEES, BY CLASSIFIED YEARS OF EXPERIENCE.

Classified years of experience.	Number.	Per cent.
Less than 1 year.....	446	14.8
1 to 4 years.....	900	29.8
4 to 10 years.....	1,120	37.2
10 to 20 years.....	379	12.6
Over 20 years (including those not giving information).....	168	5.6
Total.....	3,013	100.0

Those with less than one year's experience are almost without exception minors and apprentices. The others make a fair showing as to continuity with nearly one-half (49.8 per cent) of the total group who are known to have kept to their work for from 4 to 20 years. This showing as to experience is probably connected with both the higher wage level and with the age level, older women being notoriously less fond of change than are girls in their teens.

Of the 2,587 adults, 68 per cent were wholly, and 23 per cent partially, self-supporting; no report was received from the remaining 9 per cent on this point. Among the minors and apprentices, 20.4 per cent were wholly self-supporting, 74.4 per cent said they were partly self-supporting, and 5.2 per cent made no report on the subject.

A special survey was made of the employment of 130 janitresses in four of the large cities of the State. It was found that these women were receiving an average wage of \$32.05 per month with an average of 5.8 hours' work per day, and that the average length of service in the occupation is 4.8 years. A large proportion of the native-born women are of Scandinavian descent, while of those of foreign birth Sweden contributed the highest number. Their average age was 44 years. Over 78 per cent had dependent children.

The report gives some instances of sweatshop methods where forms of extortion are practiced by employers and where women are able to earn through hard work a mere pittance, but states that "the home work or sweatshop evil does not, to any appreciable extent, menace the good and welfare of our people, our women and children, who have to engage in work because of the necessity of earning a livelihood."

A number of other industries in which women are employed, not yet covered by the minimum-wage law, were made the subject of investigation, notably the hop industry, the cranberry industry, fruit and other canning industries, and berry picking. Hop picking is done largely by women and children who receive an average of not

more than \$1.50 per day of 10 hours or more. Many receive only \$1 per day, and some receive as high as \$2.50. In the fruit and berry-canning industry, women in the field are usually paid 30 cents per crate, working 12 to 14 hours. Inside the canneries the pay is sometimes by the hour, usually ranging from 12½ to 15 cents, with the result that the majority of women do not earn fair wages. Only about 1 in 8 make \$1 per day at sorting and stemming, and only about 1 in 40 make \$2 per day for working 10 or more hours. Sanitary conditions about the canneries were found to be reasonably good, and living quarters for the pickers, while not of the best, were not found to be particularly objectionable. The usual complaint among workers was of long hours and low wages, and some complained of living and working conditions generally.

In a clam cannery visited the women were being paid from \$1.19 to \$2.19 per eight-hour day, depending upon ability. A salmon cannery was paying to women workers, during the season—May to October—at the rate of \$1.50 for packing 1,000 cans, the women averaging during July \$30.90, and during August \$59.17 each. Prune packing engages the time of many women, the wage being on a piecework basis and ranging from \$1.29 to \$1.93 per day in the three plants visited, where the number of hours work per day varied from 8 to 10. The Commission decided, after some inquiry, that prune packing was subject to the provisions of the minimum-wage law.

The Commission strongly recommends vocational instruction for all children in school over 14 years of age, as well as compulsory continuation and night vocational schools, with such academic work as may be advisable for all persons over 14 years of age in industry and agriculture.

The creation of a child-welfare department, subject to the Commission, is recommended, one of its duties being to issue all work permits upon recommendation of school authorities of the district in which the child resides, thus taking the matter out of the hands of the court, who, because of other duties, can not possibly investigate the merits of each case. The Commission also recommends that the age of compulsory school attendance be raised from 15 to 16 years.¹

An increased appropriation for the work of the Commission is also urged, particularly in order that an agent of the Commission may be kept in the field to visit places where disputes arise and obtain at first hand the facts relating thereto.

¹ The compulsory school law provides that children shall attend school until 15 years of age, while the child-labor law prohibits the employment of boys under 14 and girls under 16 years of age, except under special permit. Thus a minor girl of 15 is beyond the authority of the school law and not privileged to enter industry without a special permit. The recommendation here noted is made to remedy this situation.

OPPORTUNITIES FOR WOMEN IN DOMESTIC SCIENCE.

Domestic science as a profession is a development of recent years. That it offers for women attractive opportunities and a gradually widening field of endeavor seems apparent from the increasing numbers who are entering it as a vocation, and the fact that many technical schools and colleges are offering special courses in home economics to a constantly increasing enrollment. To ascertain the best line of approach to this new profession, the different lines of work that are open, and the demands made by them, and what the profession offers in advancement and development, a study was undertaken in the fall of 1914 by the Women's Educational and Industrial Union of Boston, with the cooperation of the National Association of Collegiate Alumnae and the American Home Economics Association, the results of which are presented in a pamphlet¹ recently published.

There appears to be ample opportunity, for those who desire, to enter upon a course of instruction in domestic science, including all activities having to do with food and with household and institutional management. Thirty colleges, fairly well distributed geographically except in the far West and South, were found represented in the 964 replies as to preparation received. Fifty-eight per cent of those reporting received their instruction in the large group of technical institutions of college rank and these represent "the better prepared, more highly educated women in the profession of domestic science." Instruction in domestic science was received by 362 women in the institutes and extension courses, which emphasize the practical side of the training. Practically all of the colleges and institutions require high-school training. It was found that 550 women, or 54.5 per cent, of those holding domestic science positions had received no education beyond the high-school course before undertaking professional training, but that a very large proportion of the 964 (745 or 77.3 per cent) had pursued studies leading to a degree, certificate, or diploma, and that 323, or 33.5 per cent, had attained degrees, of whom 114 had received a college degree previous to the professional course. There seemed to be general satisfaction with the courses offered, although in reply to specific questions on this point quite a number indicated a desire for more practical experience in connection with the studies and a better foundation in the sciences. Most of the women (77 per cent) claimed some or much advantage gained from home occupations.

The data as to salaries received by women in the profession of domestic science are presented in a series of tables showing the

¹ Opportunities for Women in Domestic Science, by Marie Francke, A. B. Association of Collegiate Alumnae, Philadelphia, 1916. 64 pp.

relation of previous experience to the initial salary, the initial salary received according to the type of work, the increase in salary with years of experience for a 10-year period, the final salary of 960 women according to the type of work and length of experience, the relation of age and experience to final salary in teaching and managerial positions, and the relation of training to salaries. It seems that one-half of the women considered received initial salaries ranging from \$600 to \$1,000, the greatest number being in the \$600 to \$700 group; that the first salaries in managerial work averaged, for the largest group, about \$100 more than in teaching; and that in vocational and technical schools the initial salary was greater than in college and academic courses, while hospitals seemed to pay the highest initial salary. The following table shows the number receiving each specified initial salary according to the type of work and the number receiving each specified final salary according to their training:

NUMBER IN DOMESTIC SCIENCE POSITIONS RECEIVING EACH SPECIFIED INITIAL SALARY ACCORDING TO TYPE OF WORK, AND NUMBER RECEIVING EACH SPECIFIED FINAL SALARY ACCORDING TO YEARS OF TRAINING.

Salary group.	Number receiving each initial salary in—				Number receiving each final salary, by years of training.							
	Teach-ing positions.	Man-age-rial posi-tions.	Mis-cella-neous posi-tions.	Total.	College trained.				Institute trained.			
					1st year.	2d to 5th year.	Over 5 years.	Total.	1st year.	2d to 5th year.	Over 5 years.	Total.
\$200 and under \$300.....	12	1	—	3	1	1	—	12	—	—	—	—
\$300 and under \$400.....	12	5	—	17	2	1	—	13	—	—	—	—
\$400 and under \$500.....	41	8	2	51	4	2	—	16	5	4	—	9
\$500 and under \$600.....	79	17	—	96	11	8	1	20	6	3	2	11
\$600 and under \$700.....	155	30	2	187	23	21	3	47	4	15	3	22
\$700 and under \$800.....	107	54	5	166	10	36	5	51	7	20	6	33
\$800 and under \$900.....	76	50	1	127	13	44	8	65	6	29	7	42
\$900 and under \$1,000.....	62	39	—	101	3	40	9	52	7	17	11	35
\$1,000 and under \$1,100.....	36	50	1	187	10	39	15	64	7	31	15	53
\$1,100 and under \$1,200.....	16	14	—	30	5	26	10	41	6	19	11	36
\$1,200 and under \$1,300.....	16	9	2	27	9	26	15	50	1	14	23	38
\$1,300 and under \$1,400.....	2	6	1	9	1	19	15	35	—	7	15	22
\$1,400 and under \$1,500.....	2	1	2	5	1	11	6	18	—	3	7	10
\$1,500 and under \$1,600.....	1	—	—	1	—	13	13	26	—	1	9	10
\$1,600 and under \$1,700.....	2	—	—	2	—	1	6	7	1	2	2	5
\$1,700 and under \$1,800.....	—	—	—	—	—	1	3	4	—	1	—	1
\$1,800 and under \$1,900.....	—	—	—	—	—	4	9	13	—	1	—	1
\$1,900 and under \$2,000.....	—	—	—	—	—	2	4	6	—	2	1	3
\$2,000 and under \$4,100.....	1	—	—	1	1	1	11	13	—	—	7	7
Unclassified.....	42	7	5	54	4	18	4	26	4	11	9	24
Total.....	650	293	21	964	98	314	137	549	54	180	128	362

¹ Worked part time.

² Worked part time.

³ Worked part time.

Of 2,130 regular positions held by 1,028 women, 1,357 were positions in teaching and supervising home economics, of which 32.8 per cent were in the public elementary and secondary schools. The bulk of the salaries ranged between \$400 and \$1,000, while most of the salaries of teachers in the private schools, numerically much less

important, ranged between \$300 and \$1,300, the median being in the salary group of \$700 and under \$800. In vocational schools, where 23.1 per cent of the teaching positions were held, the salaries ranged between \$300 and \$1,500, with the largest number receiving between \$600 and \$1,100. In extension work, embracing 12.2 per cent of all teaching positions, the initial salaries for the largest number were in the \$600 to \$700 group. Enumerated in the order of decreasing importance, the managerial positions are offered by educational institutions, philanthropic institutions, hospitals, lunch and tea rooms, and clubs and private homes. These managerial positions may involve some teaching, only a small proportion being exclusively managerial. The greatest number of salaries in educational and philanthropic institutions were in the \$700 and under \$800 group. In hospitals the salaries for initial positions as dieticians ranged from \$400 to \$1,400, with the median in the \$900 to \$1,000 class. This median also applies to those in the lunch and tea room group.

So far as the positions of lecturing, demonstrating, writing, and research work are concerned, it was found that the first two named pay from \$75 per month and expenses to \$1,800 per annum with expenses. No estimate is given of the salaries received by those engaged in the other types of domestic science work. It appears that college-trained women predominate in teaching positions and in lecturing, demonstrating, writing, and research work, while those trained in the institutes are more frequently to be found in the managerial positions. The report concludes with the following paragraphs:

With increasing numbers of women entering the profession and with increasing scientific knowledge of all that concerns the home and its processes, there has arisen an increasing demand for thorough, specialized training of domestic science workers. The time has passed when any woman of average ability with average home experience can compete professionally with the scientifically trained woman. Side by side, with the broadening foundation in training, whether as cause or as effect, we find a broadening in the field to which that training leads. New types of positions are constantly developing, calling for new qualities and relating to different interests. For example, the woman with special aptitude for social service is not out of place in most domestic science fields, while the woman with decided business ability need not let it rest unused because she is trained for home economics.

From the types of positions which have been enumerated it can be seen that any woman whose interests lie in the sphere of the home has ample opportunity to find the particular channel through which she can best express that interest. At a time when many people are prophesying the downfall of the home as it now exists, the opportunities are constantly increasing for women to build that home and all that it stands for on a firmer and broader foundation.

PRIZES FOR ESSAYS ON SOCIAL INSURANCE AND CHILD LABOR.

Last year Dr. Charles McIntire resigned the secretaryship of the American Academy of Medicine after 25 years of faithful service. In appreciative commemoration the American Academy of Medicine decided to raise a fund the income of which should be expended in accordance with Dr. McIntire's suggestions. As a consequence the academy now announces two prize offers, the prizes to be awarded at the annual meetings for 1918 and 1921, respectively.

The subject for 1918 is "The principles governing the physician's compensation in the various forms of social insurance." The members of the committee to decide the relative value of the essays awarding this prize are Dr. John L. Heffron, dean of the College of Medicine, Syracuse University; Dr. Reuben Peterson, professor of obstetrics and diseases of women, University of Michigan; and Dr. John Staige Davis, professor of pediatrics and practice of medicine, University of Virginia.

The subject for 1921 is "What effect has child labor on the growth of the body?" The members of the committee to award this prize are Dr. Thomas S. Arbuthnot, dean of the Medical School of the University of Pittsburgh; Dr. Winfield Scott Hall, professor of physiology, Northwestern University; and Dr. James C. Wilson, emeritus professor of practice of medicine and of clinical medicine, Jefferson Medical College.

The conditions of the contests are:

(1) The essays are to be typewritten and in English, and the contests are to be open to everyone.

(2) Essays must contain not less than 5,000 nor more than 20,000 words, exclusive of tables. They must be original and not previously published.

(3) Essays must not be signed with the true name of the writer, but are to be identified by a nom de plume or distinctive device. All essays are to reach the secretary of the academy on or before January 1 of the years for which the prizes are offered and are to be accompanied by a sealed envelope marked on the outside with the fictitious name or device assumed by the writer and to contain his true name inside.

(4) Each competitor must furnish four copies of his competitive essay.

(5) The envelope containing the name of the author of the winning essay will be opened by Dr. McIntire, or in his absence by the presiding officer at the annual meeting and the name of the successful contestant announced by him.

(6) The prize in 1918 for the best essay submitted according to these conditions will be \$100; that in 1921 will be \$250.

(7) In case there are several essays of especial merit, after awarding the prize to the best, special mention of the others will be made, and both the prize essay and those receiving special mention are to become at once the property of the academy, probably to be published in the Journal of Sociologic Medicine. Essays not receiving a prize or special mention will be returned to the authors on application.

(8) The American Academy of Medicine reserves the right to decline to give the prize if none of the essays are of sufficient value.

The present officers of the American Academy of Medicine are George A. Hare, M. D., Fresno, Cal., president; J. E. Tuckerman, M. D., Cleveland, president-elect; Charles McIntire, M. D., Easton, Pa., treasurer; and Thomas Wray Grayson, M. D., 1101 Westinghouse Building, Pittsburgh, Pa., secretary.

EMPLOYMENT PROBLEMS IN INDUSTRY.

More and more industry is realizing the importance of the application of systematic and carefully thought out methods in the employment and handling of labor. Job analysis, the selection of workers, problems connected with the advancement and training of employees, and the promotion of harmonious personal relations between the management and the productive force, all of which operate to reduce labor turnover, have become such important factors in the successful administration and management of industrial activities that many large concerns have organized employment departments, in charge of expert managers, to study the problems presented and to develop the most practicable ways of making labor efficient and productive. In order to accomplish this purpose effectively an interchange of measures adopted and results achieved is essential. To this end three employment managers' conferences have been held—one at Minneapolis in January, 1916, one at Boston in May, 1916, and the third at Indianapolis in February, 1917, in connection with the meetings of the National Society for the Promotion of Industrial Education.¹ At the Indianapolis meeting there were two sessions, at which the following papers were presented:

The new order in business which demands and brings into focus the study of employment problems, by James P. Munroe, president of the Munroe Felt & Paper Co., Boston Mass.

The new profession of handling men, by Meyer Bloomfield, director Vocation Bureau, Boston, Mass.

¹ A brief account of the Minneapolis meeting appeared in the MONTHLY REVIEW for August, 1916, pp. 189-193, and the proceedings in full were printed as Bulletin of the United States Bureau of Labor Statistics No. 196. A brief account of the Boston meeting appeared in the MONTHLY REVIEW for July, 1916, pp. 62-70, and the proceedings in full were printed as Bulletin of the United States Bureau of Labor Statistics No. 202.

The new type of employment department which brings together all the problems of personal relations involved in the selection, adjustment, advancement, and training of employees, by L. H. Weir, field secretary of Playgrounds and Recreation Association of America, New York City.

How the Fore River Shipbuilding Co. determined the kind of employment department it needed and how it was put into operation, by J. M. Larkin, Fore River Shipbuilding Co., Quincy, Mass.

Activities which should be promoted by the employment department, by Mercia E. Hoagland, director of welfare, Diamond Chain Co., Indianapolis, Ind.

Methods of determining the cost of labor turnover, by Boyd Fisher, vice president Executives' Club, Detroit Board of Commerce, Detroit, Mich.

The relation of education to labor turnover in department stores, by Olma Steeg, educational director, L. S. Ayres Co., Indianapolis, Ind.

The new order or transformation in business, during the past 25 years, declared the first speaker, is due to conservation or "the safeguarding and developing of basic values and powers," and to efficiency or "the economical mobilization." The growth of both has produced a large fund of experience which may be profitable to employment managers. The speaker traced the evolution of this new order in business from the days when industrial waste was primarily characteristic, down through the years of "political bargains," "secret rebates," and "mutual distrust and suspicion" that were "enormously expensive and enormously wasteful," of "unfair competition," of consolidation and the development of "captains of industry," of the elaboration and perfection of machinery resulting in a multiplicity of machines and much "inconvenience" in manufacturing, down to the present time when efficiency has entered industry and new methods are being applied which have at least "waked us up to the idea that business is a science." Coupled with this era of efficiency has been the recognition of the human element as the essential factor of success in business. There must be teamwork—a coordination of individual working units, directed by a skilled man, together with a feeling of mutual confidence—if a business is to succeed. Here the employment manager enters, for "it is he who controls this question of the human element"; it is he who must grapple with the problems of finding good working material for the business, of giving it a chance to make the most of itself, of keeping it after it is properly trained, and of inspiring loyalty. Employment managers should determine the fundamental things needed in their business and then influence the schools to provide instruction along those lines.

Recognition of the real importance of the employment function in industry has come in comparatively recent years, and may be said to be the outgrowth of a feeling on the part of those interested in vocational education and employment of workers that young people trained for industry, perhaps inadequately in many cases, are denied the advantage of a proper avenue between the school and the job, to

the economic loss of the employer and the defeat of the purposes of industrial education. With a view to remedying this situation, Dr. Meyer Bloomfield, in his paper on "The new profession of handling men," stated that about five years ago a group of 50 men who did the hiring came together to talk over the matter of taking children from school and assigning them to work. It developed at this conference that apparently little attention had been paid to the importance of the employment department as a means of preventing friction in an establishment and promoting a more fruitful working together of the school occupations. No definite idea was brought out as to the extent or cost of labor turnover, but it was apparent that both factors were abnormal and productive of much waste. The employment department should embrace more than the mere hiring of men—it should exercise great care in the selection of men and should take personal interest in them after they are hired. Furthermore, because of the opportunities offered for instruction and for developing their minds, employees are becoming more intelligent, so that employment managers and other executives "must do some tall thinking to keep up intellectually with the under dogs who are being educated in this twentieth century by social forces, by reconstructive ideas, that we have to understand if we are going to manage intelligently."

Many of the problems confronting an employment manager have to do with personal relations involved in the selection, adjustment, advancement, and training of employees. In showing how the new type of employment department brings together all these problems, L. H. Weir, field secretary of Playgrounds and Recreation Association of America, New York, dwelt almost entirely on the question of personal relationship arising in the organization and management of any given establishment, without taking up the other matters suggested in his subject. He first emphasized the great importance of recognizing the human element in social organizations for industrial purposes and social organizations for commercial purposes, for "capital and labor are merely another expression for men with money and men with muscle and sometimes with a reasonable degree of skill." If these organizations are true to their purposes they involve fundamentally mutual interests and equitable service to each other. Unfortunately, however, "a feeling of antagonism has grown up between the interests of the men with money and the men with muscle, leading to distrust, suspicion, oftentimes the bitterest hate and oftentimes the bitterest of strife, resulting in the lack of equitable service on the part of one to the other." That this antagonism is inevitable should not be admitted, for if it is, the purpose and plans of the employment managers' conference become

useless. The large attendance of employment managers at this conference, however, indicated to the speaker their belief—

that there is a possibility of working out and developing some plan by which the interests of all parties concerned can be gradually and slowly promoted.

Such a plan for dealing with the human factor in industry may be outlined as follows:

I. Employment or selection of workers' division.

1. Standardization of specifications of all positions to be filled.
2. Keeping in touch with sources of labor supply.
3. Personal selection of applicants for positions.
4. Personal following up of applicants chosen in so far as related to positions occupied, involving—

(a) Fitness for the particular position to which assigned;

(b) Transfer from one job to another;

(c) Promotion;

(d) Matters having to do with wages, and various other means of finding an equitable basis of sharing the results of joint cooperative efforts of the two great divisions of people engaged in industry.

5. Termination of term of service, or leaving employment.

II. Medical division.

1. Physical examination of applicants for employment.
2. Medical care in cases of accidents and sickness.
3. Hygiene and ventilation.

III. "Vocational recreation" division.

1. Embraces all facilities and activities provided and organized for the utilization of the leisure time of the employees, and for their benefit as well.

These divisions were not amplified, but the great value of facilities for vocational recreation was emphasized—their value in stabilizing the labor force and in developing the higher and finer natures of the workers themselves, and their relation to the problems of housing, of juvenile and adult delinquency, and to the question of civic and social training and the question of wages.

In order to increase efficiency, reduce excessive labor turnover, conserve the labor force, and have in readiness the machinery to build up its force to meet further needs, the Fore River Shipbuilding Co., according to Mr. J. M. Larkin, its representative at the conference, made a careful study, through a committee of employees, of the physical, moral, and intellectual welfare of employees in large manufacturing establishments throughout the country. This committee subsequently recommended—

That the personnel of the employment department be made as effective and efficient as possible; that better shelter for applicants for positions be pro-

vided; that greater care should be taken in the selection and weeding out of applicants, emphasizing at all times the necessity for courtesy; establishment of an eligible list of applicants; a more careful analysis of men quitting and discharged; the inauguration of grievance machinery; the follow-up and grading of men; the adherence to a policy of promotion from within the plant; consideration of a pension scheme; the lighting, sanitation, heating, and safety of all working places; reorganization of the medical department; supervision of the lunch rooms; and consideration of housing the employees.

In line with the above recommendations a new service building, including a hospital, has been completed; a new restaurant is in operation; all workers leaving the employ of the company now pass through the employment department, where many grievances are adjusted and workers are transferred to other positions, thus reducing the labor turnover; the company is cooperating with the State and city in maintaining evening trade schools and classes in English for foreigners; welfare work is being carried on; and an effective campaign in the reduction of accidents has been carried on through safety committees.

In the general discussion that followed these papers Mr. C. H. Howard, president of the Commonwealth Steel Co., St. Louis, brought out the fact that Americanization of workers and safety first are the two most important factors in reducing labor turnover, and that the foundation of these is fellowship.

Fellowship understood and practiced establishes the brotherhood of man—good will toward all men—and that is the basic platform of our organization and our work and I believe it is the only safe one and it is the foundation of human engineering.

Mr. Howard briefly related how this policy of fellowship as applied in a plant where many foreigners are employed has resulted in greater significance to the safety-first idea and has given satisfactory commercial returns. The company expended \$11,500 to provide sanitary drinking facilities, which "was the best investment we could possibly have made."

You can take 30 per cent of safety first and fight with mechanical appliances. The other 70 per cent has to come from fellowship, and we brought our expenses of accidents from \$30,000 a year down to \$3,000. Does it pay? Sure it pays, and wouldn't you rather know that every man that comes to work is going home to his little family safe and sound? Sure we would, and so with Americanization—men who understand your language better carry out your orders, and I say that fellowship is at the bottom of it all.

Dr. Pearson, of the Tuck School of Business, agreed with Mr. Howard's idea of fellowship, but stated that its successful operation depends upon organization and the proper selection of managers who are familiar with the technique of employment, sources of supply, etc. Some industries do not know they have employment problems until an expert employment manager analyzes the situation.

The employment management function must be considered as important as any other administrative function.

The subject assigned to Mr. Boyd Fisher was "Methods of determining the cost of labor turnover," but he confined himself more particularly to measures for reducing labor turnover,¹ citing one factory in Detroit, employing between 10,000 and 12,000 men, which required 25 per cent more equipment and 25 per cent more employees, involving a total investment of \$1,800,000, to get out their work than they would have needed if they had had no labor turnover. To reduce to a minimum this constant changing of employees it is necessary first to have a cost system and a record system of turnover which should reveal its causes and the parallelism between high turnover and low efficiency. Men should be hired wisely, provided with steady work, paid an adequate wage, and not fired too hastily. Industrial education which fits a man in the plant for promotion or transfer from one job to another is important. As supplemental remedies, it was suggested that men should be started right and at a definite wage and understanding as to advancement; efficiency should be promoted and good habits fostered; work should be made an unfolding career with the encouragement of self-expression not only by complaints but by suggestions and cooperative interests and activities, this last being regarded by the speaker as of extreme importance in reducing labor turnover. The medical examination of applicants with periodical examination after employment, together with medical supervision of the plant conditions, was recommended. Other measures that might be adopted for increasing efficiency and reducing turnover were plant restaurants, shorter hours of work, athletics, rest periods, and yearly vacations with pay.

It appears that department stores have been slower than factories to recognize the problems of labor turnover, but they are now beginning to realize that these problems must be met if a preventable economic loss is to be reduced. The educational department of a store may help in this respect, according to Miss Olma Steeg, educational director of the L. S. Ayres Co., Indianapolis, first by analyzing the positions to assist the employment manager in knowing just what type of worker is needed and second by careful instruction of the employees in the rules and policy of the management so as to start them right and thus encourage them to remain. It may also be a part of the work of the educational department to watch for misfits, so that workers may be transferred from one department to another instead of

¹ See "How to reduce labor turnover," an address by Boyd Fisher, vice president, Executives' Club of Detroit, Mich., before the Philadelphia Association for the Discussion of Employment Problems, at Philadelphia, Pa., Jan. 8, 1917. The Employment Managers' Association, at Boston, Mass., Jan. 9, 1917. The Employment Managers' Group, the Managers' Council of the Chamber of Commerce, Rochester, N. Y., Jan. 11, 1917. Price, 25 cents.

being allowed to leave. Miss Steeg also emphasized the importance of the careful supervision of workers to keep them interested in their jobs, of having one man to do all the employing and discharging of employees, and of having courses of salesmanship in the high schools. Finally, if care is not exercised in the employment of workers, the educational department will become a very expensive part of the business.

This subject of labor turnover was continued in the general discussion which followed Miss Steeg's paper. C. H. Winslow, State director of vocational research, Indiana, thought it important, first, to find out and analyze the real reasons why men quit their jobs; second, to adjust rates of wages so that employees may not "smell the limit of the per hour rate or the piecework rate," but instead have a chance to earn more money; third, to train workers in the factory; and fourth, to give employees opportunity to air their grievances.

Mrs. Lucinda W. Prince, of Simmons College, Boston, and director of the department of education of the National Retail Dry Goods Association, took occasion to emphasize some of Miss Steeg's statements as to the place of education in handling labor turnover, and added a word as to the importance of a centralized employment department to make more effective the work attempted by the educational department and the necessity of studying processes and of developing the resources within the store instead of going outside for help when needed. Labor turnover is costly, not only to the establishment but also to the girls themselves and to the community. Workers should be trained for work in department stores just as they are for other vocations, and when employed and placed in positions they like should be given a chance to make good and be encouraged in every possible way.

The application of psychology to salesmanship was briefly discussed by Prof. Bingham, of the Carnegie Institute of Technology, who stated that "human engineering will not really be a science of engineering until the methods of science are applied to the measurement of the human traits with which we are dealing." He referred to the fact that 30 large industrial organizations are now financing a five-year experiment to try to find out whether or not mental tests and the methods of applied psychology really have any value in helping employment managers to determine in advance the likelihood of success of the applicant for the position, and noted some of the methods being used in his institution for checking up the results of tests along this line. The best way of proving the value of a test, he stated, was to follow up an applicant after employment and see if his record coincides with the test made previous to employment. The tests used for salesmanship are to determine the applicant's native intelligence,

general ability, alertness, range of information, systematic methods, speed, and foresight.

Mr. Fisher in his paper laid very little stress on how to determine the cost of labor turnover, but, upon request, referred to this matter more specifically in the general discussion. He quoted evidence to show that it costs from \$8 to \$73.50 to hire a new man, but admitted the difficulty of evolving a system for determining this cost definitely, because of the intangibility of the proposition itself. The following items, however, distributed over the total number employed, were suggested as entering into the cost:

1. Expense of physical examination of applicants.
2. Membership dues in an employers' association or other labor bureaus from which the supply is drawn.
3. A certain portion of the salaries and other expenses of the employing department.
4. Cost of advertising, trips out of town, rent of offices, etc.
5. Cost of printing records, etc.
6. Cost of instruction of new employees.
7. Cost of wear and tear on machinery and tools used by new employees.
8. Cost of premature depreciation of machinery.

FEDERAL AID FOR THE PROMOTION OF VOCATIONAL EDUCATION.

By an act approved February 23, 1917, the United States Congress provided for Federal aid to the States in the promotion of education in agriculture and the trades and industries and in the preparation of teachers of vocational subjects. Annual appropriations are made commencing with \$500,000 for the fiscal year ending June 30, 1918, for the payment of salaries of teachers, supervisors, and directors of agricultural subjects in accordance with the provisions of the act, increasing by annual gradations until the year 1926, when the sum of \$3,000,000 is to be set aside for this purpose, and a like amount annually thereafter. Identical provision is made as to amounts and increments for teachers of trade, home economics, and industrial subjects; while for the purpose of preparing teachers, supervisors, and directors of agricultural subjects, and teachers of trade, industrial, and home economics subjects, the sum of \$500,000 is appropriated for the first year, gradually increasing until 1921, when \$1,000,000 is to be appropriated, and a like sum annually thereafter. Money for teaching agricultural subjects is to be distributed among the States on the basis of the proportion of rural population to the total rural population of the continental area of the United States; the

sums for teachers of trade, home economics, and industrial subjects are to be apportioned on the basis of the proportion of the urban population of the several States to the total; while the sums for assisting in preparing teachers, etc., are to be distributed on the basis of the proportion of the State to the total population. State allotments for the respective purposes shall not be less than \$5,000 annually under each of the three heads at the beginning, nor less than \$10,000 after the further development of the system. All equipment, buildings, etc., are to be furnished by the State and local communities, and State and local authorities shall furnish dollar for dollar of Federal aid for the maintenance of the work of instruction.

Administration is to be by a Federal Board for Vocational Education, consisting of the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the United States Commissioner of Education, and three citizens of the United States to be appointed by the President, by and with the advice and consent of the Senate. Of these three appointees, one shall represent the manufacturing and commercial interests, one the agricultural interests, and the third shall be a representative of labor; these receive a salary of \$5,000 per annum. State boards, either the State board of education or another board established by State law, shall cooperate with the Federal board in the administration of the work for which the appropriations named are made. Courses of study are to be drawn up, methods of instruction developed, and qualifications of teachers established, all plans to be submitted by the State board to the Federal board, and if approved by it, to be carried out. All institutions receiving Federal money shall be under public supervision or control. The instruction is to be of less than college grade, and designed to meet the needs of persons over 14 years of age who have entered upon, or are preparing to enter upon, the respective vocations named in the act. Agricultural instruction must be for not less than six months in the year, and trade, home economics, and industrial instruction shall be continued for not less than 9 months per year, and not less than 30 hours per week, though for this group of courses at least one-third of the sum appropriated to any State for salaries of teachers shall be devoted to part-time schools or classes for workers over 14 years of age who have entered upon employment, the subjects to be such as will enlarge the civic or vocational intelligence of workers over 14 and less than 18 years of age. Evening industrial classes for pupils at least 16 years of age may also be provided, and shall confine their instruction to that which is supplemental to the daily employment.

Funds are to be in the custody of the State treasurer, but provision is made for accounting and for reimbursement and deductions where

there is misappropriation or failure to make use of allotments. Two hundred thousand dollars is appropriated annually for administrative purposes.

RETAIL PRICES OF FOOD IN THE UNITED STATES.

According to reports received by the Bureau of Labor Statistics, the retail price of the principal articles of food, combined, was 4 per cent higher on February 15 than on January 15. The greatest increase, 77 per cent, was shown by onions, while potatoes were 30 per cent higher. Of the 27 articles for which prices are given, eggs alone showed a decrease, 7 per cent, while five articles, namely, flour, rice, raisins, coffee, and tea made no change.

The following table shows the average money prices and the relative prices of the principal articles of food on January 15 and February 15, 1917:

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES OF FOOD JAN. 15 AND FEB. 15, 1917.

[The relative price shows the per cent that the average price on the 15th of each month was of the average price for the year 1916.]

Article.	Unit.	Average money price.		Relative price.	
		Jan. 15, 1917.	Feb. 15, 1917.	Jan. 15, 1917.	Feb. 15, 1917.
Sirloin steak.....	Pound.....	\$0.276	\$0.287	101	105
Round steak.....	do.....	.247	.260	101	106
Rib roast.....	do.....	.216	.225	102	106
Chuck roast.....	do.....	.174	.186	101	108
Plate boiling beef.....	do.....	.132	.141	103	110
Pork chops.....	do.....	.236	.261	104	115
Bacon.....	do.....	.296	.307	103	107
Ham.....	do.....	.306	.318	104	108
Lard.....	do.....	.214	.219	122	125
Hens.....	do.....	.255	.267	108	113
Salmon, canned.....	do.....	.214	.216	106	107
Eggs, strictly fresh.....	Dozen.....	.544	.506	145	135
Butter, creamery.....	Pound.....	.453	.460	115	119
Cheese.....	do.....	.312	.315	121	122
Milk.....	Quart.....	.099	.100	109	110
Bread.....	16-oz. loaf ¹.....	.070	.071	108	109
Flour.....	1-barrel bag.....	1.369	1.369	127	127
Corn meal.....	Pound.....	.040	.041	118	120
Rice.....	do.....	.091	.091	100	100
Potatoes.....	Peck.....	.587	.761	145	188
Onions.....	Pound.....	.069	.122	141	249
Beans, navy.....	do.....	.145	.149	132	135
Prunes.....	do.....	.139	.141	104	105
Raisins, seeded.....	do.....	.141	.141	109	109
Sugar.....	do.....	.080	.081	100	101
Coffee.....	do.....	.209	.209	100	100
Tea.....	do.....	.546	.546	100	100
All articles combined.....				112	117

¹ 16 ounces (weight of dough).

A comparison of prices on February 15, 1913, and February 15, 1917, shows an advance of 38 per cent in the price of all articles combined.

All of the articles for which information is given for the four-year period were higher on February 15, 1917, than on February 15, 1913, the greatest increase, 224 per cent, being that of potatoes. Flour, with an increase of 69 per cent, and eggs, 61 per cent, are the two articles showing the greatest increase next to potatoes.

Comparing February 15, 1916, with February 15, 1917, onions show the greatest increase, 177 per cent, while potatoes increased 107 per cent and beans 61 per cent. Rice, coffee, and tea show no change in price, and no article shows a decrease as between the two dates.

The table following shows in detail the average and relative retail prices for February 15 of each year from 1913 to 1917.

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES ON FEB. 15 OF EACH YEAR, 1913 TO 1917.

[The relative price shows the per cent that the average price on the 15th of February was of the average price for the year 1916.]

Article.	Unit.	Average money price Feb. 15.					Relative price Feb. 15.				
		1913	1914	1915	1916	1917	1913	1914	1915	1916	1917
Sirloin steak.....	Pound...	\$0.240	\$0.254	\$0.248	\$0.257	\$0.287	88	93	91	94	105
Round steak.....	do.....	.206	.228	.223	.228	.260	84	93	91	93	106
Rib roast.....	do.....	.189	.199	.197	.201	.225	89	94	93	95	106
Chuck roast.....	do.....	.169	.162	.162	.186	.....	98	94	94	94	108
Plate boiling beef.....	do.....	.124	.123	.122	.141	.....	97	96	95	110	
Pork chops.....	do.....	.188	.209	.179	.193	.261	83	92	79	85	115
Bacon.....	do.....	.255	.264	.267	.273	.307	89	92	93	95	107
Ham.....	do.....	.253	.265	.259	.297	.318	86	90	88	101	108
Lard.....	do.....	.154	.158	.152	.177	.219	88	90	87	101	125
Hens.....	do.....	.208	.222	.208	.222	.267	88	94	88	94	113
Salmon, canned.....	do.....	.....	.198	.200	.216	.....	98	99	99	107	
Eggs, strictly fresh.....	Dozen.....	.315	.364	.338	.349	.506	84	97	90	93	135
Butter, creamery.....	Pound.....	.414	.359	.378	.378	.469	105	91	96	96	119
Cheese.....	do.....	.....	.....	.235	.248	.315	.....	91	96	122	
Milk.....	Quart.....	.089	.091	.089	.089	.100	98	100	98	98	110
Bread.....	16-oz. loaf ¹	.....	.055	.063	.062	.071	.....	85	97	95	109
Flour.....	1-bbl. bag	.809	.787	1.100	1.003	1.369	75	73	102	93	127
Corn meal.....	Pound.....	.030	.031	.033	.033	.041	87	92	98	96	120
Rice.....	do.....	.....	.....	.091	.091	.091	.....	100	100	100	100
Potatoes.....	Peck.....	.235	.284	.219	.369	.761	58	70	54	91	188
Onions.....	Pound.....	.....	.....	.034	.044	.122	.....	69	90	249	
Beans, navy.....	do.....	.....	.....	.076	.092	.149	.....	69	84	135	
Prunes.....	do.....	.....	.....	.137	.133	.141	.....	102	99	105	
Raisins, seeded.....	do.....	.....	.....	.125	.126	.141	.....	97	98	109	
Sugar.....	do.....	.055	.051	.064	.068	.081	69	64	80	85	101
Coffee.....	do.....	.....	.....	.299	.299	.299	.....	100	100	100	100
Tea.....	do.....	.....	.....	.546	.546	.546	.....	100	100	100	100
All articles combined.....	.....	.....	.....	.....	.....	.....	85	88	89	93	117

¹ 16 ounces (weight of dough).

UNION-WAGE SCALES AND RETAIL PRICES OF FOOD.

The Bureau of Labor Statistics has in press a bulletin (No. 214) entitled "Union Scale of Wages and Hours of Labor, May 15, 1916," giving the scales in force on the date stated, for the principal trades in 48 of the leading cities of the United States. Summary figures back to the year 1907 appear in this bulletin.

Another bulletin (No. 219) about to go to press relates to "Retail Prices, 1907 to December, 1916."

From these two sources and current returns as to retail prices received by the bureau, index numbers have been computed for union-wage rates and hours of labor and for retail prices of food for each year, 1907 to 1916, with the retail prices continued to January and February, 1917. The union-wage scales are for May each year. The yearly retail-price figures are computed from an average of the monthly prices of the year. The year 1907 is taken as the base (100 per cent) in the computation of the index numbers. The index numbers appear in the following table, where it will be seen that while wage rates have increased materially and hours of labor have slightly decreased since 1907, the retail prices of food have advanced to a much greater extent, especially in 1916, thus reducing the purchasing power of wages. The retail-price figures for the two months of 1917 show a still further decided advance over the average for the year 1916.

INDEX NUMBERS OF UNION-WAGE RATES AND HOURS OF LABOR, 1907 TO 1916, AND OF RETAIL PRICES OF FOOD, 1907 TO FEBRUARY, 1917.

Year.	Rates of wages per hour.	Full-time hours per week.	Rates of wages per week, full time.	Retail prices of food.
1907.....	100	100	100	100
1908.....	101	100	101	103
1909.....	102	99	102	108
1910.....	105	99	104	113
1911.....	107	98	105	112
1912.....	109	98	107	119
1913.....	111	97	109	122
1914.....	114	97	111	125
1915.....	115	97	112	123
1916.....	119	96	116	139
January, 1917.....				156
February, 1917.....				162

WHOLESALE PRICES, 1890 TO 1916.

The annual report on wholesale prices of the Bureau of Labor Statistics, which will be transmitted to the printer at an early date, will bring the Bureau's series of wholesale prices down to the end of 1916. The index numbers of the various groups of commodities and for all commodities combined, computed upon a basis of average prices of 1916 equal 100, are given in the table presented herewith.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, 1890 TO 1916.

[1916=100.]

Year or month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Drugs and chemicals.	House furnishing goods.	Miscellaneous.	All commodities.
1890.....	56	70	73	59	77	71	63	109	76	66
1891.....	60	70	71	59	68	69	65	108	76	66
1892.....	54	63	70	56	63	66	64	106	73	61
1893.....	55	69	70	56	57	67	63	106	75	63
1894.....	48	60	62	52	48	65	58	105	71	56
1895.....	49	58	61	59	52	64	62	99	68	57
1896.....	44	53	59	59	54	62	64	97	66	54
1897.....	48	56	60	52	48	61	62	90	67	54
1898.....	50	60	62	53	48	64	65	96	66	56
1899.....	50	59	65	61	73	70	67	95	68	60
1900.....	56	62	70	70	71	75	68	101	75	65
1901.....	59	63	65	68	66	72	69	112	74	64
1902.....	66	67	66	80	66	76	68	112	76	69
1903.....	62	64	70	92	65	79	67	111	78	69
1904.....	66	68	70	79	60	80	68	106	78	70
1905.....	53	68	72	75	66	84	67	99	78	69
1906.....	64	66	77	78	76	93	66	99	80	72
1907.....	70	70	82	81	81	96	67	99	84	76
1908.....	69	74	75	78	63	91	70	95	80	74
1909.....	79	78	78	76	62	96	71	96	90	79
1910.....	84	79	79	72	63	100	72	94	96	81
1911.....	76	78	76	70	60	100	72	90	86	77
1912.....	82	85	78	77	67	98	71	90	84	82
1913.....	82	79	79	87	67	99	70	91	83	81
1914.....	85	81	78	80	59	96	72	94	81	80
1915.....	86	83	78	75	65	93	80	92	81	81
1916.....	100	100	100	100	100	100	100	100	100	100
1916.										
January.....	89	90	87	88	85	98	98	95	89	89
February.....	89	90	89	89	89	99	101	95	88	90
March.....	91	91	92	90	95	100	103	95	91	92
April.....	93	93	94	91	99	100	105	99	92	94
May.....	95	94	96	90	102	101	107	99	95	96
June.....	95	94	97	91	101	100	105	99	100	96
July.....	96	96	99	91	98	98	100	101	101	97
August.....	103	101	100	92	98	99	92	101	103	100
September.....	107	106	103	96	100	99	92	101	105	103
October.....	111	111	108	111	102	100	95	104	110	108
November.....	118	119	114	130	108	103	99	104	112	116
December.....	116	115	122	141	125	105	100	104	113	118

WHOLESALE PRICES IN GREAT BRITAIN.

According to the British Board of Trade Labor Gazette for January, 1917 (p. 6), the general level of wholesale prices continued to rise throughout 1916, and the index number¹ for the year, 186.5 based on the index numbers of 47 separate articles weighted in accordance with their estimated consumption,² was the highest on record. In the following table the index numbers of 47 articles are classified into four groups, showing the total averages for 1916 as compared with those of every year back to 1900, which is taken as the base, or 100.

¹ A full explanation of the British Board of Trade index numbers may be found in Bulletin 173 of the United States Bureau of Labor Statistics, p. 255 et seq.

² The amount of consumption of an article is the production plus the imports, if any, minus the exports, if any. (See Bulletin 173, p. 259.)

INDEX NUMBERS OF 47 ARTICLES, CLASSIFIED BY GROUPS, FOR EACH YEAR, 1900 TO 1916, INCLUSIVE, THE YEAR 1900 BEING TAKEN AS THE BASE YEAR OF THE SERIES.

[Source: Board of Trade Labor Gazette, January, 1917, pp. 6, 7.]

Year.	Coal and metals.	Textiles (raw materials).	Food, drink, and tobacco.	Miscellaneous.	All articles combined.
1900	100.0	100.0	100.0	100.0	100.0
1901	82.2	93.3	100.1	96.3	96.7
1902	76.1	92.3	101.4	92.5	96.4
1903	74.1	101.7	100.6	91.7	96.9
1904	70.9	112.9	101.2	88.3	98.2
1905	71.3	106.7	101.2	91.1	97.6
1906	78.3	121.1	101.0	95.6	100.8
1907	86.9	127.4	105.5	99.7	106.0
1908	78.5	109.8	107.0	94.8	103.0
1909	73.6	112.4	108.7	96.5	104.1
1910	76.6	136.2	109.2	104.3	108.8
1911	74.7	128.9	111.6	105.5	109.4
1912	84.9	119.6	119.9	110.1	114.9
1913	92.5	135.0	117.7	109.4	116.5
1914 (January to July)	86.2	135.1	114.8	106.2	113.6
1914 (August to December) ¹	88.8	116.8	130.4	119.1	122.6
1914 (year)	86.7	128.8	120.9	111.3	117.2
1915	116.7	119.8	154.1	143.8	143.9
1916 ²	166.1	180.2	189.2	204.7	186.5
Per cent of increase, 1916 over 1915	42.3	50.4	22.8	42.4	29.6

¹ First 5 months of the war.

² The figures for 1916 are preliminary and subject to correction.

It will be noted that since 1908 the upward movement has progressed continuously, with a sharp advance in the years 1915 and 1916, incident to the war. The greatest increases, 1916 over 1915, were in the following commodities: Cotton, 59 per cent; British wool, 63 per cent; jute, 45 per cent; silk, 47 per cent; petroleum, 94 per cent; paraffin wax, 64 per cent; cotton seed, 63 per cent; wood and timber, 56 per cent. In foods the percentage of increase is not given for each commodity, but the general increase was approximately 23 per cent, as shown in the table. This is less than in the other groups, but is significant, since the index number of this group had already reached a high level in 1915. The most noticeable increases in foodstuffs were on potatoes, foreign spirits, rice, maize, and British barley.

In the *Economist* for February 17, 1917¹ (pp. 293 and 343), the index numbers of commodity prices are presented on a somewhat different basis and in a slightly different grouping from those published by the Board of Trade. Here the average prices of the various commodities in each group (5 groups instead of 4, as in the table above) in the five years 1901 to 1905 are totaled and divided by 2,² the result being taken as the group basis. The market prices at the various dates given are relatives of the basis price. The following

¹ The *Economist*, Weekly Commercial Times, Bankers' Gazette, and Railway Monitor; A Political, Literary, and General Newspaper. Granville House, Arundel Street, Strand, London, W. C.

² At the time the *Economist* began to publish index numbers there were 22 commodities included. These have been increased to 44, and in order to make the present index number comparable with those based upon 22 articles, the totals are here divided by 2.

table is a record of movements in various commodity groups, month by month, from the outbreak of the war down to the close of 1916:

INDEX NUMBERS OF COMMODITY PRICES, BY GROUPS, MONTH BY MONTH FROM JAN. 1, 1914, TO DEC. 31, 1916, THE AVERAGE FOR THE YEARS 1901 TO 1905 BEING TAKEN AS THE BASIS, 100; SHOWING ALSO THE PERCENTAGE OF CHANGE FROM MONTH TO MONTH.

[Source: The Economist, Feb. 17, 1917, p. 293.]

Date.	Cereals and meats (10 articles).	Other food products (tea, sugar, etc.) (6 articles).	Textiles (10 articles).	Minerals (8 articles).	Miscellaneous (rubber, timber, oils, etc.) (10 articles).	Total (44 articles).	Percentage of change.
Basis (average), 1901-1905.	500	300	500	400	500	2,200	100.0
Jan. 1, 1914.....	563	355	642	491	572	2,623	119.2
Apr. 1, 1914.....	560	350 $\frac{1}{2}$	626 $\frac{1}{2}$	493	567	2,597	118.0
July 1, 1914.....	565 $\frac{1}{2}$	345	616	471 $\frac{1}{2}$	551	2,549	115.9
End July, 1914.....	579	352	616 $\frac{1}{2}$	464 $\frac{1}{2}$	553	2,565	116.6
End August, 1914.....	641	369	626	474	588	2,698	122.6
End September, 1914.....	646	405	611 $\frac{1}{2}$	472 $\frac{1}{2}$	645	2,780	126.4
End October, 1914.....	656 $\frac{1}{2}$	400 $\frac{1}{2}$	560	458	657	2,732	124.2
End November, 1914.....	683	407 $\frac{1}{2}$	512	473	684 $\frac{1}{2}$	2,760	125.5
End December, 1914.....	714	414 $\frac{1}{2}$	509	476	686 $\frac{1}{2}$	2,800	127.3
End January, 1915.....	786	413	535	521	748	3,003	136.5
End February, 1915.....	845	411	552 $\frac{1}{2}$	561 $\frac{1}{2}$	761	3,131	142.3
End March, 1915.....	840	427	597	644	797	3,305	150.2
End April, 1915.....	847	439 $\frac{1}{2}$	594 $\frac{1}{2}$	630	816	3,327	151.2
End May, 1915.....	893	437	583	600	814	3,327	151.2
End June, 1915.....	818	428	601	624	779	3,250	147.7
End July, 1915.....	838 $\frac{1}{2}$	440 $\frac{1}{2}$	603	625	774	3,281	149.1
End August, 1915.....	841	438 $\frac{1}{2}$	628	610 $\frac{1}{2}$	778	3,296	149.8
End September, 1915.....	809 $\frac{1}{2}$	470 $\frac{1}{2}$	667	619 $\frac{1}{2}$	769 $\frac{1}{2}$	3,336	151.6
End October, 1915.....	834	443 $\frac{1}{2}$	681	631 $\frac{1}{2}$	781	3,371	153.2
End November, 1915.....	871 $\frac{1}{2}$	444	691	667 $\frac{1}{2}$	826	3,500	159.1
End December, 1915.....	897	446	731	711 $\frac{1}{2}$	848 $\frac{1}{2}$	3,634	165.1
End January, 1916.....	946 $\frac{1}{2}$	465	782 $\frac{1}{2}$	761 $\frac{1}{2}$	884 $\frac{1}{2}$	3,840	174.5
End February, 1916.....	983	520 $\frac{1}{2}$	805 $\frac{1}{2}$	801 $\frac{1}{2}$	897 $\frac{1}{2}$	4,008	182.2
End March, 1916.....	949 $\frac{1}{2}$	503	796 $\frac{1}{2}$	851	913	4,013	182.4
End April, 1916.....	970 $\frac{1}{2}$	511	794 $\frac{1}{2}$	895	1,019	4,190	190.5
End May, 1916.....	1,024	529	805	942	1,019	4,319	196.3
End June, 1916.....	989	520	794	895	1,015	4,213	191.5
End July, 1916.....	961	525	797	881	1,040	4,204	191.1
End August, 1916.....	999 $\frac{1}{2}$	531 $\frac{1}{2}$	882	873	1,086	4,372	198.7
End September, 1916.....	1,018	536 $\frac{1}{2}$	937	858 $\frac{1}{2}$	1,073	4,423	201.0
End October, 1916.....	1,124 $\frac{1}{2}$	543	990 $\frac{1}{2}$	850 $\frac{1}{2}$	1,087 $\frac{1}{2}$	4,596	208.7
End November, 1916.....	1,177 $\frac{1}{2}$	558	1,091	850 $\frac{1}{2}$	1,102	4,779	217.2
End December, 1916.....	1,294	553	1,124 $\frac{1}{2}$	824 $\frac{1}{2}$	1,112	4,908	223.0

¹ Taken from the table published in the Economist. The number probably should be 1,024.

Cereals and meats, minerals, textiles, and the miscellaneous group share generously in the upward jump.

In a sentence, the main causes of the aggravated advance of 1916 were the deficiency of tonnage, the immense withdrawal of men from production, and inflation.

COAL PRODUCTION, DISTRIBUTION, AND CONSUMPTION IN THE UNITED STATES, 1915 AND 1916.

Two pamphlets issued by the United States Geological Survey, one on December 16, 1916, and the other on December 28, 1916, present statistical information, respectively, on the production and distribu-

tion and consumption of coal in 1915,¹ both pamphlets being reprints from the volume on mineral resources of the United States in 1915, also issued by the Geological Survey. A supplemental statement was issued on January 24, 1917, bringing this data down to the close of 1916. According to this statement, the production and consumption of coal in 1916 broke all records, the quantity of bituminous coal mined being estimated as 509,162,000 net tons,² which is an increase of 66,537,574 tons, or about 15 per cent, over 1915. The production of anthracite coal is estimated at 88,312,000 net tons, or 683,061 tons less than in 1915. This gives an estimated total output in 1916 of 597,474,000, or an increase of 12.4 per cent over 1915. Only three States, it appears (Maryland, Oklahoma, and Texas), show a decrease of production in 1916. The largest increase was in Ohio—65 per cent. The statement suggests a shortage of labor in 1916, and reports from many operators seem to indicate that the scarcity of labor, notably in the last half of the year, was such as to have restricted production even had the supply of cars been greater. However, from the evidence available it is believed that the number of men employed in the production of bituminous coal in 1916 was slightly greater than in 1915, and that the average number of days worked was more than 230, compared with 203 in 1915 and 232 in 1913.

The consumption of coal by the railroads in 1916 is estimated to have been 17,500,000 tons greater than in 1915, the use of coal in the manufacture of coke was greater by 20,500,000 tons, exports increased about 2,500,000 net tons, the coal mines used 500,000 tons more for steam and heat, and the increase in consumption, mainly by the manufacturing industries, was 25,500,000.

The pamphlet relating to coal production in 1915 shows a total tonnage of 531,619,487 valued at \$686,691,186, an increase over 1914 of 3.5 per cent in quantity and 0.8 per cent in value. The increase in production of bituminous coal alone was nearly 5 per cent. "The returns to the producers were, however, lower, the average price per ton at the mines declining from \$1.17 in 1914 to \$1.13 in 1915, with the result that the total value increased less than 2 per cent. Pennsylvania anthracite, production and value, decreased about 2 per cent," but the State is credited with the largest production of any State—46.5 per cent of the total tonnage and 51.3 per cent of the total value.

Attention is called to the fact that although the production was greater in 1915 than in 1914, accompanied by greater number of active days, there was a notable decrease in the number of employees—734,008, as against 763,185 in 1914. In spite of this fact,

¹ United States Geological Survey. Coal in 1915: Part A. Production. 87 pp. Part B. Distribution and Consumption. 81 pp. Washington, 1916.

² Throughout the reports the short ton of 2,000 pounds is meant.

the average annual output of bituminous coal per employee, which is the index of the labor supply, increased from 724 tons in 1914 to 794 tons in 1915, which may be explained by the fact that the average number of days worked in 1915 was 7 more than in 1914. Most of the bituminous mines reporting (59.5 per cent) operated 8 hours per day. Approximately 23 per cent worked 10 hours. The average days worked by all mines was 209. Reducing the 734,008 employees to a 300-day basis, the number of employees in 1915 was 511,359, which, divided into the total production, gives 1,039.6 tons as the average tonnage mined per man per year, or 3.46 tons per day.

The report states that the number of fatal accidents in 1915 was 2,266, as compared with 2,454 in 1914, and was the lowest since 1907; that the death rate per 1,000 employed was 3.1, as compared with 3.22 in 1914, and was the lowest since 1898; that the production was 234,607 tons per death in 1915, against 209,261 in 1914, and was, in fact, the greatest on record. Reduced to the basis of 300-day workers, the fatality rate per 1,000 was 4.43; in 1914 it was 4.66, and in 1913 it was 4.7. No information is given as to the number of nonfatal accidents.

During 1915 there were 36,865 men affected by strikes in the bituminous mines and 30,325 in the anthracite mines, the total number of days lost being 2,467,431, or an average of 37 days per man. In Ohio alone, 15,048 men were on strike, involving a loss of 1,722,013 days, or an average of 114 days each.

As to the distribution of coal mined in 1915, it appears that of the 442,624,426 tons of bituminous coal approximately 33 per cent was used in the State where mined, 27 per cent was shipped to other States, 26 per cent was used by railroads, 8 per cent was shipped to tidewater, and 5 per cent was shipped to the Great Lakes for cargo. Part of the latter, however, was ultimately used by railroads. The bituminous coal imported amounted to 1,709,205 tons, while 18,776,640 tons of bituminous and 3,965,255 tons of anthracite were exported.

Taking up the matter of consumption of coal in 1915, the report states that of the total amount of bituminous coal used—443,492,509 tons¹—approximately 70 per cent was used for making steam, of which amount 33 per cent was used by industrial plants, 28 per cent by railroads, 16 per cent by domestic and small steam trade, including dwellings, apartments, etc., and 14 per cent in making coke. The per capita consumption of coal was about 5 tons and the consumption per square mile was 123 tons, ranging from 1 ton in Arizona to 1,968 in Pennsylvania.

¹ The total consumption of coal in 1915, obtained by subtracting from the sum of the production and imports of bituminous and anthracite coal the exports and foreign bunker fuel, was 502,220,104 tons.

CONVICT LABOR FOR ROAD WORK.

Contrary to popular belief the use of convict labor for road work is not a new practice, for it has long been followed in all countries, and in the United States dating probably from 1658, when the Virginia Colonial Assembly passed a law providing for the employment of prisoners on public works. However, the growth in number and size of our penal institutions and the consequent increase in the cost of maintenance has led a number of the States actively to employ convicts on road work and is prompting other States to seek information on the subject. In an effort to meet this demand for authoritative and practical information the United States Department of Agriculture, through its Office of Public Roads and Rural Engineering, in cooperation with the Public Health Service, undertook to make an exhaustive investigation during 1914 and 1915 of the subject of convict labor for road work as the principle has been applied in a number of the States, to determine—

Whether it is profitable to use convicts for road construction, and if so, under what conditions.

The systems of discipline and management productive of the best results.

The character and economy of structures and equipment best adapted to conditions in various sections of the country.

The character, preparation, and cost of food.

The steps necessary to secure proper sanitation and hygiene.

The most suitable system of cost keeping and record.

Detailed and comparative cost data on every phase of the subject.

The results of this investigation are set forth in Bulletin 414¹ of the Department of Agriculture, issued under date of December 15, 1916, the purpose of this report being "to cover as nearly as possible all questions that might arise in connection with either the adoption of a policy relating to the use of convict labor in road work or the actual working out of such a policy."

There are six systems of convict labor in operation: (1) The lease system, under which the State disposes of its convicts to private lessees; (2) the contract system, under which the State sells the labor of convicts, but does not relinquish its care or control; (3) the piece-price system, under which the contractor pays an agreed amount for each piece or article manufactured, the State usually supervising the work; (4) the public-account system, under which the State conducts all the industries in which convict labor is used and sells the product; (5) the State-use system, which is the same as the last named, except that the product is not sold, but is used in State institutions; (6) the public works and ways system, involving the use of convict labor on

¹ Convict Labor for Road Work, United States Department of Agriculture, Bulletin 414. Contributed from the Office of Public Roads and Rural Engineering. Washington, Dec. 15, 1916. 218 pp. 2 inserts. Illustrated.

public works rather than in the production of marketable articles or merchandise; this system includes road work. The following table shows the number of convicts employed under each system in specified years and the number of States in which each system is practiced in whole or in part:

CONVICTS EMPLOYED UNDER THE VARIOUS SYSTEMS IN SPECIFIED YEARS, AND THE NUMBER OF STATES IN WHICH EACH SYSTEM WAS PRACTICED.

System of work.	1885		1903-4				1914-15		States using system.
			296 institutions.		186 institutions.		186 institutions.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Lease.....	9,104	20.1	3,652	7.1	2,925	8.4	950	1.4	1
Contract.....	15,670	34.6	16,915	33.1	12,126	34.7	6,981	10.6	18
Piece price.....	5,676	12.5	3,886	7.6	2,000	5.7	1,193	1.8	4
Public account.....	14,827	32.8	8,530	16.7	6,128	17.6	11,807	18.0	19
State use.....	-----	-----	12,045	23.5	7,152	20.6	33,805	51.4	35
Public works and ways.....	-----	-----	6,144	12.0	4,542	13.0	11,063	16.8	27
Total.....	45,827	100.0	51,172	100.0	34,873	100.0	65,799	100.0	-----
Total of public account, State use, public works and ways system ¹	14,827	32.8	26,719	52.2	17,822	51.2	56,675	86.2	-----

¹ This grouping shows the total number of convicts employed for the benefit of the State and is given in order to render comparison practicable, since in 1885 the State-use and public works and ways systems were not reported separately, all such work being classified under the public-account system.

From this table it will be seen that the State-use system is more widely followed than any other and that the trend has been toward those systems under which the convicts are employed for the benefit of the State.

The main opposition to the employment of convict labor in the manufacture of trade articles appears to come from skilled free labor, making "the abandonment of such competition almost necessary, and the adoption of either or both the State-use system and the public works and ways system has seemed the only alternative." Under the latter system "there is less competition with free labor and none with manufacturers, but, on the contrary, the creation of public utilities by means of convict labor is more than likely to give greater employment to free labor and to create a greater demand for the products of the manufacturer."

The report takes up briefly the advantages and disadvantages of the employment of convict labor on road work and notes among the first (1) that such work is undoubtedly more healthful than indoor work; (2) that, based on reports from 22 States, 65.5 per cent of the prisoners were skilled and unskilled outdoor laborers before imprisonment, as against 23.09 per cent who were shop workers and indoor laborers; (3) that work on the road has no degenerative mental effect as has shop work; (4) that it removes the convict as far as possible from competition with free labor; (5) that it is

extremely productive to the public and is a benefit to the convict himself; (6) that progression from the restraint of the bars to the greater freedom of outdoor life, with self-restraint and proper living under guidance in the camps, tends to fit him to conduct himself properly after discharge; (7) that it is a very useful factor in the discipline of the penal institution.

Against these advantages the opponents of road labor urge (1) that it exposes the convict to the public gaze and not only advertises his shame but has a tendency to harden the public feeling by permitting it to grow accustomed to spectacles which constantly suggest crime; (2) that the congregate life of the road camps exposes the better convicts to the physical, mental, and moral contamination of their more depraved associates; (3) that road labor is not suitable to the ability or physical strength of all prisoners; (4) that public work affords opportunity for escape; (5) that road work can not prove to be a solution of the prison-labor problem because it is impracticable to provide such employment during the winter; (6) that outdoor employment entails a larger expense for the maintenance of prisoners than work done inside; (7) that such use of convicts is economically bad because the same work can frequently be done at less expense by free labor on account of the comparative inefficiency of convict labor.

The report disposes of the first four of these objections by suggesting that they lose their serious aspect if the selection of convicts for road work is based upon their conduct in the institution, and if they are then classified and graded according to character, ability, and habits.

The investigators found it very difficult to determine the relative efficiency of convict and free labor on road work, but it is stated that as a class the convicts "undoubtedly possess a lower order of intelligence and less initiative, ability, and willingness in the performance of honest work than free laborers."

The causes of this inefficiency and remedies to be applied are at once suggested in the following paragraph, which indicates that economic interests may be subserved—

First, by strict attention to the cost of maintenance and by honest effort to reduce it to the minimum amount consistent with proper living conditions and discipline; second, by the reduction, so far as possible, of all losses of working time; third, by providing a positive incentive to industry to offset the negative fear of punishment; fourth, by the elimination of politics as a factor in the selection of officials; fifth, by offering to officials such salaries as to command the services of capable men; sixth, by combining the responsibility and authority for the direction of road work and convicts in one person at each camp; seventh, by such a diversification of labor and employment as to provide for the large body of prisoners the kind of work in the performance of which they manifest the greatest ability; eighth, by judicious selection of the work to be

performed by convicts; ninth, by the proper adjustment of the size of the force to the requirements of the work and by the formation of camps of economical size; tenth, by adopting a more mechanical kind of work for short-term prisoners, or, if they must be employed at road work, the separation of long and short term men.

But if less efficient, the work of convict gangs may be more productive than free labor at the same cost. A table is given showing for 15 States the cost of maintenance of productive convict labor per calendar day and per working day, with a column indicating the daily wages paid to free labor. The record is admittedly inadequate, but shows in some cases a very slight margin in cost of these two types of labor, while revealing in other instances a very wide difference (as much as \$1.61 in Colorado) in cost. "Because of this apparent cheapness," declares the report, "with which convicts are fed, clothed, and housed, officials have been led, through lack of adequate records, into a false sense of security in regard to the economy of convict labor, and there has been a tendency to condone and overlook lapses from a standard of high efficiency because of a feeling that the margin between the daily cost of convict and free labor was wide enough to allow a certain amount of waste." It is stated that the cost of maintaining one productive road laborer one workday will be found to be 40 to 50 per cent greater than the maintenance cost per convict per calendar day.

Taking up the matter of management and operation it was found that a thorough test of the county control of convicts, as distinguished from State control, seems to point to the advisability of the adoption of the latter plan. If this is done it is believed—

1. That the total overhead expense for the administration of all the convict labor of the State will be reduced by the elimination of a large number of small offices and the consolidation of the supervision in one central office;
2. That the wide outlook of State officials will lead to the practical adoption of more scientific methods;
3. That the greater financial means of the State will permit of the employment of a more able class of officials;
4. That the counties will be relieved of the expense of maintaining small convict forces which produce inconsequential results;
5. And that the force of convicts will be available for work in the counties where there is a demand for the heavy road work best suited to the employment of convict labor, while slight repairs and maintenance not economically done with convict labor may be performed by free labor, supplemented, perhaps, by small forces of paroled convicts.

The difficulty of placing the control in the proper State department is recognized because of the dual aspect of the work, and it is believed that the best results may be obtained under a system which clearly defines and separates the responsibilities of the prison and highway departments. The report briefly suggests how this division of responsibility may be accomplished to the best economic advantage;

outlines a method of keeping records and cost accounting, the latter to show the daily and total itemized costs of maintaining the convicts and the unit and total costs of the work; and enters into an extended discussion of discipline and methods of control which must be well adapted to the special conditions of the work and the peculiar character of the convicts in order to minimize the chance for escape which has been suggested as one of the greatest objections to convict labor on road work. Two systems of discipline are noted—the guard system, under which the convicts wear suits of striped material, are chained, are punished by whipping, and are restrained by armed guards; and the honor system, involving none of these practices but under which the security of the convict is placed largely in his own hands. In one form or another, 21 States practice the former and 16 States the latter. The systems appear to be about equally effective in preventing escapes, but it is clear from the report that the honor system is much to be preferred, although it is admitted that under average conditions only about 25 per cent of any force respond favorably to a reasonable measure of trust, which makes this system, perhaps, less productive of results in work accomplished than the guard system. It is very important that care be exercised in the selection of men for road work and in the substitution of rewards for penalties, and to accomplish this result a graded system of discipline is advocated in which both the guard system and the honor system have a place.

Camp location is an important factor. The sanitary conditions, water supply, bathing facilities, and living quarters should be carefully planned and developed, and suggestions to effectuate the best results along these lines are presented in some detail. Comparatively little sickness was found in convict camps, the daily sick rate at 40 camps in different parts of the country varying from less than 1 per cent to 6 per cent. All convict camps have arrangements whereby the services of a physician may be secured when necessary. Many camps are well equipped with first-aid outfits. As to camp structure, the first essential is stated to be economy, the second is good appearance, the third is convenience, the fourth is comfort, the fifth is provision for easy cleaning, and the sixth is good ventilation and screening. Supplying and equipping a convict camp was found to be a difficult problem. It is estimated that about \$19.75 per man per year is required for clothing. Another important matter is the rations provided for these workers and much attention should be given to food values so that the body may be properly nourished for the work to be done. Suggested diets are given and meals provided in specified camps are presented, with the approximate cost.

The report closes with an appendix giving a digest of the State laws relating to the use of convict labor for road work.

NEW LEGAL REGULATION OF THE LABOR CONTRACT IN AUSTRIA.

Up to the present date Austrian legislation, like that of the greater part of European countries, has made no efforts toward a uniform codification of the labor laws. Therefore, such laws are found chiefly as constituent parts of nearly all codifications of larger branches of the law, though there are also special laws regulating labor.

Until recently the labor contract was regulated in Austria by the General Civil Code enacted June 1, 1811. Only a dozen short articles of this code were given over to the regulation of the labor contract, and this small portion of the code has never done full justice to the importance of the labor contract. It had become generally acknowledged in Austria that the Civil Code was particularly defective in its failure to keep up with the general economic and industrial progress, and for this reason several amendments of important portions of the code were lately enacted. The third amendment, enacted March 19, 1916 (R. G. Bl. No. 69), includes the provisions relating to the labor contract. Briefly outlined, the labor contract is now regulated as follows:

Nature and essentials.—According to article 1151, a contract of employment (*Dienstvertrag*) is formed if a person obligates himself for a specified period of time to perform services for another person. A contract for work (*Werkvertrag*) is formed if a person obligates himself to the performance of a piece of work for a compensation. If the contract does not determine a compensation and gratuitous services have not been agreed upon, a suitable compensation shall be considered as agreed upon. Unless otherwise stipulated in the contract, the employee must perform the contractual services in person. Neither can the employer transfer his claim to the services of the employee. In so far as no agreement has been made as to the exact nature and extent of the services, ordinary services appropriate to the circumstances must be performed.

Compensation.—Unless otherwise stipulated or customary in the case of the services in question, the compensation becomes payable after the performance of the services. If the compensation is being computed by months or shorter periods of time it becomes payable at the end of the individual period; if computed by longer periods, the compensation becomes payable at the end of each calendar month. Compensation computed by the hour, by the piece, or by individual performances becomes payable at the end of each calendar week for all completed performances, and in the case of services of a higher nature at the end of each calendar month. In case of termination of the service relation, the earned compensation in any case becomes payable immediately.

Employees compensated by the piece or by individual performances are entitled to an advance corresponding to the services performed and to the expenditures incurred before the compensation becomes due.

An employee having been employed at least two weeks, who, through sickness or through injuries suffered through an accident, is for a relatively short period, not exceeding a week, prevented from performing his services, retains claim to compensation for this period, provided his disability was not purposely caused by him or brought about by gross negligence on his part. He likewise retains his claim to compensation when, without his own fault, he is prevented from performance of his services by other important reasons relating to his person. If the employee during the period of his disability receives a compensation from a legal insurance carrier the employer may deduct from the claim made upon him by the employee a portion of this compensation corresponding to the relation of his own actual contribution to the total premium.

The employee also has a claim for services not rendered, provided he was ready to render services and was prevented from rendering them by circumstances due to the employer. Savings made by the employee in consequence of his prevention of rendering services or earnings made in other employment, or willfully neglected to make, during his prevention may, however, be deducted from such a claim. The employee is likewise entitled to compensation for any loss of time caused by similar circumstances.

Duties of employer during sickness of the employee.—In case of sickness of an employee who is a member of the household of his employer, the law provides that unless this sickness has been brought about purposely by the employee or through gross negligence on his part, the employer, in addition to paying him wages, must furnish him medical care and the required curatives for a period up to two weeks if the service relation has been effective at least two weeks, and up to one month if the service relation has been effective at least half a year. Care in a medical institution or care by third parties may, under conditions specified in the law, be substituted for care in the household. The employer is exempt from the above obligation if the service relation is of a temporary nature and has been in effect less than one month.

Cash expenditures of the employer for medical or institutional care or for care by third parties may be deducted by him from the wages due to employee for the period of his sickness. If the employee receives a cash sick benefit from a legal insurance institute, the employer may deduct from the wages such a portion of this benefit as corresponds to his share of the total contribution. The employer is

exempt from all the above obligations if the employee is insured in an institute granting him the same benefits which according to this law are due him from the employer.

The obligations of the employer to pay wages and provide medical care during disability caused by sickness or accident become extinct if the service relation is terminated on account of expiration of the contractual period or on account of previous notice or discharge not caused by sickness of the employee or other serious reasons relating to his person.

Other duties of the employer.—The employer must so regulate the performance of the services and provide at his own expense such rooms and tools that life and health of the employee are protected as much as the nature of the services make it possible. If the employee is living in the household of the employer, the latter must, with due consideration of the employee's health, morals, and religion, provide suitable lodging, board, hours of labor, and periods of rest and recreation.

Termination of the service relation.—The service relation terminates on the expiration of the period for which it was contracted. A temporary or probationary service relation may be terminated by both parties during the first month. A service relation contracted for life or a period in excess of five years may, after the expiration of five years, be terminated by the employee on six months' notice. If a service relation has been contracted or continued for an indefinite period, it may be terminated on proper notice as provided below.

Notice.—In case of a contract of employment not relating to services of a higher nature, in which compensation by the hour or day or by the piece or individual performances has been agreed upon, notice of the termination of the service relation may be given at any time, to take effect on the subsequent day. If such a service relation forms the principal occupation of the employee and has been in effect for three months, or if compensation by the week has been agreed upon, notice must be given on the first day of a calendar week in order that termination of the contract takes effect at the end of the same week. In case of compensation by the piece or single performances, the notice does not take effect until the performance of the work on which the employee has been engaged at the time of giving notice has been completed.

If a service relation comprising services of a higher nature forms the principal occupation of the employee and has been in effect three months, notice must be given at least four weeks in advance without consideration of the method of compensation. The same is applicable to all service relations in which compensation by the year has been agreed upon.

In all other cases the service relation may be discontinued by giving at least two weeks' notice.

The term for giving notice must always be the same for both parties. If unequal terms were agreed upon, the longer term is applicable to both parties.

After notice has been given, an employee who lives in the household of the employer, or who by his service relation is prevented from looking for other employment, must be granted suitable leave with pay to obtain other employment. The length of time for which he shall be granted leave may be determined for individual localities and districts by administrative order.

Premature termination of the service relation.—For weighty reasons a service relation entered for a specified period may be terminated before the expiration of this period, and one entered for an indefinite period may be terminated by both parties without notice.

If the employee, without weighty reason, prematurely terminates his service relation, the employer may demand either his reentrance into the service relation or claim damages for breach of contract. The employee is likewise liable for damages for breach of contract if, through his own fault, he has brought about his premature discharge. For work performed for which compensation is not yet due the employee, in case of premature termination of the service relation, has a claim to corresponding compensation only in so far as the work is not entirely or largely worthless to the employer.

If, on the other hand, the employer without weighty reason prematurely discharges the employee, or, if the employer is at fault for the premature leaving of the employee, the latter, without prejudice to a claim for damages, is entitled to his contractual compensation for the full period until the contract is terminated through expiration or proper notice. The employer may, however, deduct from the claimed compensation any amount which the employee has saved on account of services not performed or the amount of wages earned through other employment or which he willfully neglected to earn. If, however, the above period does not exceed three months, the employee may claim full compensation for this period without any deduction.

If both parties are at fault for the premature termination of the service relation, the decision as to the validity and amount of a claim for compensation shall rest with the court.

To be valid, claims on account of premature leaving or discharge of the employee must be presented to a court within six months from the date on which they could be made.

Certificate.—On the termination of the service relation the employee must on his request be given a certificate as to the duration

and nature of his services. If the employee request a certificate while still in service, it is to be given him at his expense. Statements and remarks in the certificate which would make it difficult for the employee to obtain other employment are not permissible. Certificates of the employee which are in the custody of the employer must be delivered to the former on demand.

Mandatory Provisions.—Rights of the employee contained in the above regulation of the contract of employment may neither be waived nor restricted in the contract.

The above amendment of the Civil Code became effective on January 1, 1917, and is applicable to all service relations in effect on this date. It is not applicable to the service relation of persons in the service of the Imperial Court, the State, a State institution, a Province, district, or commune, or of a public fund. The amendment does not prejudice the effectiveness of provisions regulating the service relation which are contained in the general mining law, the industrial code, the law of July 28, 1902, the domestic servant laws, the mercantile employees' act, the service and disciplinary regulations of supervisory railroad authorities, and the organic law of the State railroad administration. The above amendment of the Civil Code becomes applicable to service relations regulated in the enumerated special laws only in so far as these laws do not regulate the contract of employment.

STRIKES AND LOCKOUTS IN THE UNITED STATES, 1916.

During the past three years the United States Bureau of Labor Statistics has kept a record of such strikes in this country as have come to its attention. This information has been obtained from 25 daily papers printed in the more important industrial cities of the country, from about 100 labor papers, nearly as many trade-union periodicals, and a dozen or so trade papers, and has been supplemented by statements made in response to schedules of inquiry sent to employers whose employees were on strike and to officials of unions whose members had been concerned in or were believed to have knowledge of labor troubles. In all, 3,513 circulars were sent, of which number 1,385 were returned answered in whole or in part, 389 were returned undelivered for various reasons, and the remainder were unanswered. This report is based on the data secured from the sources above mentioned in addition to information voluntarily furnished by correspondents of the bureau.

The following table shows the number of strikes and lockouts begun in each of the months of 1916 and 1915. In comparing these

figures it must be borne in mind that, although the number of strikes in 1916 has undoubtedly been larger than those of the corresponding months of 1915, the sources of the data in regard to strikes have also been increased, and the difference between the two years is therefore not so great as the figures would tend to show. The strikes and lock-outs were distributed as follows:

NUMBER OF STRIKES AND LOCKOUTS BEGINNING IN EACH MONTH, 1915 AND 1916.

Kind of dispute.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated.	Total.
Strikes:														
1916.....	148	156	226	334	517	286	255	274	216	253	187	136	169	3,157
1915.....	60	48	83	96	129	66	112	164	174	106	113	76	193	1,420
Lockouts:														
1916.....	8	3	5	15	13	14	3	8	5	4	4	2	24	108
1915.....	13	12	14	16	11	6	14	8	15	8	10	8	38	173
Total:														
1916..	156	159	231	349	530	300	258	282	221	257	191	138	193	3,265
1915..	73	60	97	112	140	72	126	172	189	114	123	84	231	1,593

The large increase in number of strikes during the month of May is accounted for by the fact that the trade agreements in many industries terminated on the 30th day of April, and the unions very generally asked for an increase in wages in making the new agreement. The increase in number during the summer and fall is doubtless due in part to the increased demand for labor and to the increased cost of living which was so apparent during the latter part of the year. The decrease in November and December is probably due to the fact that reports for those months are incomplete, since reports, aside from those obtained from the daily and weekly papers and periodicals, frequently do not reach the bureau until two or three months after the strike has ended. Corrected figures for these two months will therefore undoubtedly show a large increase over those here given. The total number of labor disturbances shown in the above table is 3,268, a number that will very likely be increased to at least 3,400 when corrected figures are received.

The disturbances for the year do not seem to have been confined to any district or industry. Ten per cent of the strikes occurred in New York City, where upward of 300,000 persons were involved. Of these, several strikes involving large numbers of garment workers occurred during the year, as follows: Children's dressmakers, in January; embroidery workers and needleworkers, in February; tailors, in March; ladies' garment workers, in May; men's clothing workers, in August; garment workers, in October; and men's and boys' clothing workers, in December. Strikes of painters and carpenters occurred in April; hod carriers, in October; and button workers, in

March. The New York street-railway strike that occurred during the fall was accompanied by several sympathetic strikes. Other New York strikes that attracted attention were those of the paper-box makers in August; machinists, in March; metal workers, in June; ironworkers, in May; barbers, in September; insurance agents, in July; grocery clerks, in September; longshoremen, in May; jewelry workers, in March; cigarette makers, in September; brickmakers, in May; sugar refiners, in January; and waiters, in March.

In New Jersey several important strikes occurred in the vicinity of New York City: Those of the embroidery workers in Hudson County, in February; the machinists of Newark, in June; oil refiners of Bayonne, in October; and the can makers at Edgewater, and freight handlers in Jersey City, Hoboken, and Weehawken.

Coal strikes were prevalent throughout the country, involving upward of 350,000 men. Many of those in the anthracite region were in regard to the interpretation of the eight-hour agreement or the price of powder. Seventy-five were of the variety known as "button." Strikes also occurred in the bituminous region of Pennsylvania, and in West Virginia, Ohio, Kentucky, Kansas, Oklahoma, and Texas. There were also strikes of metal miners in the Morenci district in Arizona and the Messabe range in Minnesota.

In Philadelphia, the strikes of the hat makers in May, the ladies' garment workers in January, the men's clothing workers in February, and the machinists in June, attracted attention, as did the Westinghouse strike in April, and later the street car strikes in Pittsburgh. In Chicago occurred strikes of a harvester company in April, the building trades in May, and the teamsters in January. Other strikes deserving mention were those of the longshoremen on the Pacific coast from Alaska to San Diego; the culinary workers and ship-builders in San Francisco; cigar makers in Chicago, Porto Rico, and Florida; the butchers in Chicago, St. Louis, and Sioux City; the lumber workers in Minnesota and Washington; the building trades in Omaha and St. Louis; the machinists in Milwaukee; textile strikes in various points in Rhode Island; the agricultural laborers in Porto Rico; and the strikes in Youngstown, Ohio.

The following table shows the number of strikes and lockouts in 1915 and 1916 by States and by sections of the country; in making comparisons, the incompleteness of the figures must be taken into consideration.

NUMBER OF STRIKES AND LOCKOUTS, BY STATES AND SECTIONS, 1915 AND 1916.

State or section.	Strikes.		Lockouts.		State or section.	Strikes.		Lockouts.	
	1916	1915	1916	1915		1916	1915	1916	1915
Alabama.....	14	2	1	2	New Hampshire.....	19	5	—	—
Alaska.....	3	—	—	—	New Jersey.....	224	191	6	9
Arizona.....	8	4	—	1	New York.....	511	200	15	22
Arkansas.....	17	2	—	1	North Carolina.....	7	—	1	—
California.....	54	20	1	7	Ohio.....	272	119	14	13
Canal Zone.....	4	—	—	—	Oklahoma.....	23	5	—	1
Colorado.....	17	6	—	—	Oregon.....	22	6	1	1
Connecticut.....	129	145	1	8	Pennsylvania.....	564	149	8	15
Delaware.....	12	14	—	—	Porto Rico.....	23	12	—	2
District of Columbia.....	6	1	1	—	Rhode Island.....	75	38	1	2
Florida.....	9	—	—	—	South Carolina.....	5	4	—	—
Georgia.....	8	9	—	2	Tennessee.....	24	4	2	3
Hawaii.....	4	—	—	—	Texas.....	28	30	—	9
Idaho.....	5	—	—	—	Utah.....	3	9	—	—
Illinois.....	148	53	10	21	Vermont.....	10	2	—	—
Indiana.....	69	21	5	9	Virginia.....	14	5	2	1
Iowa.....	24	11	1	2	Washington.....	57	31	1	6
Kansas.....	12	6	—	1	West Virginia.....	39	24	1	3
Kentucky.....	11	14	2	1	Wisconsin.....	60	15	2	5
Louisiana.....	7	3	1	1	Wyoming.....	—	1	—	—
Maine.....	25	6	—	—	Interstate.....	4	1	—	—
Maryland.....	37	12	3	1	Total.....	3,157	1,420	108	173
Massachusetts.....	339	153	9	7	North of the Ohio and east of the Mississippi.....	2,564	1,155	80	120
Michigan.....	60	30	5	3	South of the Ohio and east of the Mississippi.....	158	75	9	14
Minnesota.....	24	11	6	4	West of the Mississippi.....	435	190	19	39
Mississippi.....	4	1	—	—					
Missouri.....	89	38	7	5					
Montana.....	13	3	1	—					
Nebraska.....	21	4	—	—					

The largest number of disputes occurred in the leading manufacturing States: Pennsylvania, New York, Massachusetts, Ohio, and New Jersey, more than one-half of the strikes being in the first four States named.

The following table shows the number of strikes and lockouts in cities in which 15 or more disputes occurred during 1916, with the number of disturbances occurring in the same cities for the year 1915:

CITIES IN WHICH 15 OR MORE STRIKES OCCURRED IN 1916, WITH NUMBER FOR 1915.

City.	Strikes.		Lockouts.		City.	Strikes.		Lockouts.	
	1916	1915	1916	1915		1916	1915	1916	1915
New York, N. Y.....	341	128	11	15	Holyoke, Mass.....	25	3	—	—
Philadelphia, Pa.....	73	36	1	6	Trenton, N. J.....	24	12	1	1
Chicago, Ill.....	71	25	—	15	San Francisco, Cal.....	23	5	—	3
Boston, Mass.....	58	29	5	3	Bridgeport, Conn.....	21	51	1	2
Cleveland, Ohio.....	55	33	2	3	Pawtucket, R. I.....	20	11	—	1
St. Louis, Mo.....	54	14	3	2	Providence, R. I.....	20	15	—	1
Pittsburgh, Pa.....	45	21	2	—	Bayonne, N. J.....	19	12	—	1
Baltimore, Md.....	35	15	3	1	Hartford, Conn.....	19	18	—	1
Newark, N. J.....	34	21	1	2	Lawrence, Mass.....	19	4	—	—
Buffalo, N. Y.....	32	9	2	2	Kansas City, Mo.....	17	12	3	2
Springfield, Mass.....	30	22	1	1	Fall River, Mass.....	16	7	2	—
Milwaukee, Wis.....	29	5	—	3	Omaha, Nebr.....	16	6	—	—
Detroit, Mich.....	28	16	3	3	Portland, Oreg.....	16	6	—	1
Jersey City, N. J.....	27	26	—	1	Scranton, Pa.....	16	3	1	1
Youngstown, Ohio.....	27	3	—	1	New Bedford, Mass.....	15	2	—	—
Cincinnati, Ohio.....	25	9	3	2					

In 2,691 strikes and 76 lockouts the employees concerned in the strike were men, in 112 strikes women, in 225 strikes and 9 lockouts men and women, and in 129 strikes and 23 lockouts the sex was not

reported. In 1915 the corresponding figures were 1,085 strikes and 131 lockouts, 37 strikes and 4 lockouts, 122 strikes and 15 lockouts, and 176 strikes and 23 lockouts.

The following tables show the number of strikes and lockouts in the leading industry groups and individual occupations in which the largest number of strikes occurred in 1915 and 1916. In comparing the two years allowance should be made for the incompleteness of the figures.

NUMBER OF STRIKES IN THE LEADING INDUSTRY GROUPS IN WHICH THE LARGEST NUMBER OF STRIKES AND LOCKOUTS OCCURRED, 1915 AND 1916.

Industry.	Strikes.		Lockouts.	
	1916	1915	1916	1915
Metal trades.....	487	289	14	41
Mining.....	395	65	3	2
Building trades.....	348	259	18	28
Textile work.....	222	93	3	7
Transportation.....	205	20	4	1
Clothing industries.....	187	131	5	13
Teaming.....	94	33	6	2
Baking.....	65	31	15	33
Iron and steel workers.....	67	33	-----	-----
Tobacco industry.....	59	8	2	1
Stone workers.....	56	21	2	-----
Furniture industry.....	47	16	2	4
Lumber industry.....	44	13	-----	1
Paper manufacturing.....	40	14	2	1
Glass manufacturing.....	39	15	-----	2
Rubber workers.....	34	10	1	1
Meat cutting.....	32	7	-----	2
Leather workers.....	28	5	-----	-----
Printing and publishing.....	23	5	4	3
Shipbuilding.....	23	-----	-----	-----

NUMBER OF STRIKES IN INDIVIDUAL OCCUPATIONS IN WHICH THE LARGEST NUMBER OF STRIKES OCCURRED, 1915 AND 1916.

Occupation.	Strikes.		Lockouts.	
	1916	1915	1916	1915
Miners, coal.....	367	55	3	2
Machinists.....	236	167	8	16
Molders.....	130	43	3	6
Teamsters.....	94	32	6	2
Bakers.....	65	31	15	33
Carpenters.....	65	50	2	8
Tobacco workers.....	59	10	2	1
Street railway employees.....	53	22	3	2
Building laborers.....	51	21	1	-----
Plumbers and steam fitters.....	48	36	1	9
Longshoremen.....	48	18	-----	1
Painters.....	42	24	-----	4
Paper makers.....	40	14	2	1
Glass workers.....	39	15	-----	2
Metal polishers.....	36	37	2	13
Boot and shoe makers.....	34	12	1	1
Rubber workers.....	34	10	1	1
Inside wiremen.....	29	23	4	-----
Tailors.....	30	26	-----	2
Leather workers.....	28	5	2	-----
Freight handlers.....	26	19	-----	-----
Structural ironworkers.....	23	10	1	-----
Boiler makers.....	23	14	-----	3
Corset makers.....	23	6	-----	-----
Brickmakers.....	20	8	1	-----
Hat and cap makers.....	20	21	1	-----
Sheet-metal workers.....	20	21	1	2
Brewery workers.....	19	18	2	-----

In 2,246 strikes and 94 lockouts the employees were connected with unions; in 439 strikes and 5 lockouts they were unconnected with unions; in 70 strikes and 1 lockout they were not so connected at the time of striking, but organized almost immediately thereafter; in 402 strikes and 8 lockouts the relation of employees to unions was not reported. In 1915 the corresponding figures were 798 strikes and 131 lockouts; 173 strikes and 3 lockouts; 29 strikes; and 420 strikes and 39 lockouts.

The causes of the strikes and lockouts were numerous. In few cases was the cause confined to one matter in dispute. The principal causes are shown in the following table:

PRINCIPAL CAUSES OF STRIKES AND LOCKOUTS, 1915 AND 1916.

Matter of dispute.	Strikes.		Lockouts.	
	1916	1915	1916	1915
For increase of wages.....	1,031	355	11	12
For decrease of wages.....	32	97	2	10
Nonpayment of wages.....	13	10	.....	1
Increase of hours.....	3	8	4	.....
Decrease of hours.....	107	73	2	7
For increase of wages and decrease of hours.....	374	156	2	3
General conditions.....	55	37	.....	4
Conditions and wages.....	53	29	2	1
Conditions and hours.....	2	6	.....	1
Conditions, wages, and hours.....	25	12	.....	1
Recognition of the union.....	257	66	21	17
Recognition and wages.....	119	28	2	1
Recognition and hours.....	21	6	1	.....
Recognition, wages, and hours.....	68	11	5	1
For organizing.....	.....	.....	1	12
Discharge of foreman wanted.....	17	16	.....	.....
Because of discharge of employees.....	121	67	5	13
Because of employment of nonunion men.....	70	55	4	5
In regard to the agreement.....	38	10	2	.....
For a new agreement.....	35	12	3	.....
Discrimination.....	9	8	.....	.....
Sympathy.....	32	16	1	1
Jurisdiction.....	19	28	.....	.....
Miscellaneous.....	116	99	7	22
Not reported.....	540	215	33	62
Total.....	3,157	1,420	108	173

The number of persons involved in strikes and lockouts in 1915 and 1916 is shown in the following table:

NUMBER OF STRIKES AND LOCKOUTS, BY CLASSIFIED NUMBER OF PERSONS INVOLVED, 1915 AND 1916.

Group of persons involved.	Strikes.		Lockouts.		Group of persons involved.	Strikes.		Lockouts.	
	1916	1915	1916	1915		1916	1915	1916	1915
1 to 5.....	68	32	11	17	351 to 400.....	58	18	1	1
6 to 10.....	82	57	2	13	401 to 450.....	21	10	.....	.....
11 to 15.....	87	33	4	8	451 to 500.....	79	23	3	2
16 to 20.....	102	48	4	6	501 to 600.....	60	19	1	.....
21 to 25.....	61	25	2	7	601 to 700.....	43	14	.....	1
26 to 30.....	74	32	2	2	701 to 800.....	59	16	1	1
31 to 40.....	120	45	9	12	801 to 900.....	17	8	1	1
41 to 50.....	112	50	4	9	901 to 1,000.....	43	12	.....	2
51 to 60.....	76	25	4	2	1,001 to 1,200.....	28	15	2	.....
61 to 70.....	68	19	.....	2	1,201 to 1,500.....	36	16	.....	2
71 to 80.....	53	29	.....	4	1,501 to 2,000.....	35	10	.....	2
81 to 90.....	37	9	2	1	2,001 to 3,000.....	48	15	.....	.....
91 to 100.....	87	33	1	1	3,001 to 5,000.....	33	11	2	.....
101 to 125.....	70	44	2	5	5,001 to 10,000.....	33	9	1	.....
126 to 150.....	72	46	1	9	10,001 to 30,000.....	15	7	1	1
151 to 175.....	29	13	.....	1	Over 30,000.....	4	.....	.....	.....
176 to 200.....	113	52	1	6	Not reported.....	1,034	645	44	49
201 to 250.....	65	35	.....	3	Total.....	3,160	1,420	108	173
251 to 300.....	95	30	2	1					
301 to 350.....	43	15	.....	2					

In 2,126 strikes and 64 lockouts the number of persons involved was reported to be 1,546,428 and 53,182, respectively, or an average of 722 and 831, respectively. Omitting the 145 strikes and 4 lockouts, in which the number of persons involved exceeded 2,000, the average number involved in the remaining strikes was 253 and in the lockouts 148. In 1915 the average number of persons involved in 872 strikes, of less than 2,000 persons each, was 227 and in 123 lockouts it was 144.

In 2,749 disturbances the number of establishments involved in each was stated. In each case only 1 establishment was involved in 2,313 strikes and 64 lockouts, or 86 per cent of the disputes for which this information was available; 2 establishments in 106 strikes and 3 lockouts; 3 in 63 strikes and 5 lockouts; 4 in 28 strikes; 5 to 10 in 65 strikes and 3 lockouts; 11 to 100 in 78 strikes and 2 lockouts; over 100 in 17 strikes and 2 lockouts.

RESULTS OF STRIKES AND LOCKOUTS, 1915 AND 1916.

Result.	Strikes.		Lockouts.	
	1916	1915	1916	1915
In favor of employers.....	471	128	21	16
In favor of employees.....	706	193	16	18
Compromised.....	542	322	11	28
Employees returned pending arbitration.....	70	31	3	2
Not reported.....	171	69	2	.....
Total.....	1,960	743	53	64

NUMBER OF STRIKES AND LOCKOUTS, BY MONTHS IN WHICH ENDED, 1915 AND 1916.

Kind of dispute.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated.	Total.
Strikes:														
1916.....	94	90	133	221	246	173	160	181	178	154	142	69	119	1,960
1915.....	30	21	45	53	78	50	68	111	118	63	57	49	.....	743
Lockouts:														
1916.....	3	3	3	3	7	3	2	7	4	6	2	5	1	53
1915.....	7	1	.....	7	12	2	.....	4	5	9	2	8	.....	64
Total:														
1916..	97	93	136	224	253	176	160	185	184	156	147	70	132	2,013
1915..	37	22	45	60	90	52	75	115	123	72	59	57	.....	807

Thirty-seven strikes and 17 lockouts beginning in 1914 or former years were settled in 1915 and 54 strikes and 1 lockout beginning in 1915 or former years were settled in 1916. One hundred and forty-nine strikes and 31 lockouts starting in 1915, and 248 strikes and 5 lockouts starting in 1916 were believed to be pending at the end of the year stated. In addition, in 172 strikes and 6 lockouts starting in 1915, and in 122 strikes and 6 lockouts starting in 1916 new employees were hired and the work became normal in a few days, but the bureau has no record that these strikes were ever formally declared off.

DURATION OF STRIKES AND LOCKOUTS.

Duration.	Strikes.		Lockouts.		Duration.	Strikes.		Lockouts.	
	1916	1915	1916	1915		1916	1915	1916	1915
Less than 1 day ..	36	15			19 to 21 days.....	73	24	1	-----
1 day.....	105	61		1	22 to 24 days.....	34	22	1	3
2 days.....	129	59	2	-----	25 to 28 days.....	50	15	1	1
3 days.....	105	56	1	1	29 to 31 days.....	46	13	-----	2
4 days.....	92	33	1	2	32 to 35 days.....	21	14	-----	1
5 days.....	105	39	1	2	36 to 42 days.....	44	21	2	4
6 days.....	67	29	3	1	43 to 49 days.....	21	11	2	-----
7 days.....	71	35	2	3	50 to 63 days.....	45	21	-----	4
8 days.....	73	22	1	2	64 to 77 days.....	35	14	1	2
9 days.....	41	15	2	1	78 to 91 days.....	26	13	1	2
10 days.....	82	25	2	-----	92 to 199 days.....	79	24	12	7
11 days.....	34	14	1	-----	Over 200 days.....	16	15	6	2
12 days.....	26	7	-----	1	Not reported.....	319	69	-----	14
13 days.....	23	13	1	2	Total.....	1,960	743	53	64
14 days.....	46	21	3	1					
15 to 18 days.....	116	23	6	5					

The total duration of these strikes was 40,801 days and of the lockouts 3,375 days, the average duration of the strikes being 25 days and of the lockouts 64 days. If, however, the disturbances lasting more than three months are omitted from consideration, the average was 16 days for the former and 19 days for the latter. The average duration of the strikes ending in 1915 and lasting less than 3 months was 15 days and of the lockouts 27 days.

The table following shows the number of strikes and lockouts in the various industries by States.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1916.

STRIKES.

States, etc.	Agricultural workers.	Building trades.										
		Bakers.	Barbers.	Brass and brass goods workers.	Brewery workers.	Brick makers.	Broom and brush workers.	Brick-layers.	Carpenters.	Electrical workers.	Lathers.	Laborers and hod carriers.
Alabama.....		2										
Arizona.....									1			
California.....		4							1	1		
Canal Zone.....		1										
Colorado.....		3			1	2						
Connecticut.....		4		9					6	5	1	5
Dist. Columbia.....		2						1		1		
Idaho.....												
Illinois.....		6	1				3	2	2	1	1	7
Indiana.....		2					2	2	1	1		
Iowa.....									1	1		
Kansas.....										1		
Louisiana.....							2		1			
Maryland.....								1				
Massachusetts.....		4					1		7	3		16
Michigan.....		1					2	1	1			
Minnesota.....		1					1		1			1
Missouri.....		1					2	1		2		2
Montana.....			1				1		1			
Nebraska.....										1		2
New Hampshire.....								1				
New Jersey.....		6	2				3		4			3
New York.....		15	8	1		2	2		3	11	2	8
Ohio.....		8				2	3	1	1	8	5	1
Oklahoma.....												1
Oregon.....						1						
Pennsylvania.....		1				2		1	1	9	3	
Porto Rico.....		2	2									3
Rhode Island.....								2	1			
Tennessee.....									1			
Texas.....		1							3	1		1
Virginia.....									1			
Washington.....		3										1
Wisconsin.....		1							3	1		
Total.....		5	65	14	10	19	20	8	11	65	29	5
												6

LOCKOUTS.

Alabama.....		1						1		1		
Illinois.....		1										
Louisiana.....												
Maryland.....		2										
Massachusetts.....		1	1			1				1		
Michigan.....		1										
Minnesota.....		1										
Missouri.....						1	1					1
New Jersey.....		1									1	
New York.....		5									1	
Pennsylvania.....			1								1	
Virginia.....		1										
Wisconsin.....		1										
Total.....		15	2	1	2	1			2	4	1	1

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1916—Continued.

STRIKES.

States, etc.	Building trades—Concluded.								Carriage and wag- on work- ers.	Chem- ical work- ers.	Clerks (re- tail).	Clothing.	
	Paint- ers.	Plas- ter- ers.	Plumb- ers and steam fitters.	Roof- ers.	Sheet metal work- ers.	Structural iron work- ers.	Tile lay- ers.	Mis- cel- la- neous.				Boot and shoe- mak- ers.	But- ton mak- ers.
Arizona.....						1							
Arkansas.....	1	1	1						1				
California.....	1	1	3		1	2			3				
Colorado.....	1	2	1										
Connecticut.....	2		3						3	1			
Delaware.....			1										
Idaho.....			1										
Illinois.....	2	2	1										
Indiana.....	1		1										
Iowa.....	1		1		2								
Kansas.....	2			2									
Kentucky.....					1								
Louisiana.....										1			
Maine.....											3		
Maryland.....													
Massachusetts.....	8		11	1	1	1			2		1	16	3
Michigan.....	1		2		1				2	1	2		
Minnesota.....	1				3				1				
Missouri.....			3			1			6		2		
Montana.....									2				
Nebraska.....						1	3		2				
New Hampshire.....												2	
New Jersey.....	1		1			1			4	1	18	1	
New York.....	8	1	4		4	4			4	2	12	6	7
Ohio.....	1		3		4	5			3		1		2
Oklahoma.....			2			1							
Oregon.....	1												
Pennsylvania.....	6		4			2			1		3		1
Porto Rico.....									1				
Rhode Island.....	2	1				1						1	
South Carolina.....	1				2								
Tennessee.....													
Texas.....													
Utah.....			1										
Virginia.....						1					1		
Washington.....											1		
West Virginia.....									2		1		
Wisconsin.....	1								3			1	
Total.....	42	3	48	3	20	23	2	39	11	42	12	34	4

LOCKOUTS.

Illinois.....								2					
Indiana.....									1				
Massachusetts.....									1				
Minnesota.....						1			2				
Missouri.....										1			1
Montana.....										1			
New Jersey.....											1		
Ohio.....		1									1		
Pennsylvania.....							1						
Total.....		1				1	1	2	4	3			1

¹ 1 of glaziers.² Paper hangers.³ Glaziers.⁴ 22 of plumbers, 13 of steam fitters only.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES,
1916—Continued.

STRIKES.

States, etc.	Clothing—concluded.											Coop- ers.	Elec- tric and gas supply work- ers.
	Cloak, waist, and skirt mak- ers.	Cor- set mak- ers.	Glove mak- ers.	Hat and cap mak- ers.	Milli- ners.	Rain- coat mak- ers.	Shirt mak- ers.	Chil- dren's dress- mak- ers.	La- dies' cloth- ing mak- ers.	Men's cloth- ing mak- ers.	Tai- lors.		
Arkansas.....												1	
Colorado.....												1	
Connecticut.....	3	1		2		1		1	1	1	1		
Georgia.....													
Illinois.....			1						3	2	3	3	
Indiana.....									1	1			
Maryland.....									6			2	
Massachusetts.....	1	1		2		1		1	3	2		1	
Michigan.....				1					1	1		1	
Minnesota.....										1			
Missouri.....									1		1		
Montana.....												1	
New Hampshire.....												1	
New Jersey.....	4	1		3		1	1	1	2	3	1		1
New York.....		20		10	9	1	6	3	22	9	6	1	2
Ohio.....	5				1					2	5		
Oklahoma.....												2	
Pennsylvania.....	4			2	1		2		3	3	2	2	1
Texas.....										1			
Virginia.....										1			
Washington.....											1		
Wisconsin.....			1							1	4		1
Total.....	17	23	2	20	10	3	11	4	32	35	30	11	12

LOCKOUTS.

California.....													1
New York.....										2	2		
Total.....										2	2		1

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1916—Continued.

STRIKES.

States, etc.	Fishermen.	Food handlers.	Freight handling and teaming.			Furniture workers.			Glass work-ers.	Hard-ware work-ers.	Horse-shoers.	Hotel em-ployees.	Iron, steel, and wire work-ers.
			Freight han-dlers.	Long-shore-men.	Team-sters.	Cabi-net-makers and carv-ers.	Up-hol-sterers.	Occu-pation not speci-fied.					
Arkansas.....			1										
California.....	2	3		2					2				2
Colorado.....		1			1				1				
Connecticut.....			2	2	2						1		
District of Co-lumbia.....					1								
Florida.....				1									
Georgia.....				1	1								
Hawaii.....				2	1								
Illinois.....		1	3			7	4		2	4	9		2
Indiana.....									1	4			2
Iowa.....		1				2							
Kentucky.....					1								
Maine.....		1		1	1								
Maryland.....		1		2		1	1	1	1	1	1		1
Massachusetts.....	2		7	8	7	6	1	1	1	1	1	3	5
Michigan.....		1								1		1	
Minnesota.....						2							1
Missouri.....						10	1	1		1			
Montana.....						2							
Nebraska.....						1							
New Jersey.....		1	2	3		5				1	3		19
New York.....	2		8	10	23	14	1	4	2	5	1	2	4
Ohio.....	3				6	1				7	6		8
Oregon.....				2				1	2				
Pennsylvania.....			2	4	7	2	1		9	5	3		21
Porto Rico.....	2					1							
Rhode Island.....			1	1		2				1	1		3
Tennessee.....						2							
Texas.....						1							
Virginia.....				2									
Washington.....	2	3		2	5								
West Virginia.....					1					5			
Wisconsin.....				1	2	1							1
Interstate.....				3									
Total.....		6	20	26	48	94	30	6	11	39	31	8	6
													67

LOCKOUTS.

Kentucky.....						1							
Minnesota.....						2							
Missouri.....						1							
New York.....							2						
Ohio.....						1							
Pennsylvania.....						1							
Total.....						6	2						

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1916—Continued.

STRIKES.

States, etc.	Laun- dry work- ers.	Leather work- ers.	Lum- ber and tim- ber work- ers.	Meat cutters and butch- ers.	Metal trades.								Occu- pa- tion not spec- ified.
					Black- smiths.	Boiler mak- ers.	Ma- chin- ists.	Metal pol- ishers.	Mold- ers.	Pat- tern mak- ers.	Stove mount- ers.		
Alabama.....							3			3		2	1
California.....	1					4	2						
Colorado.....							1						
Connecticut.....				2			17			8			1
Delaware.....		2				2	3						
Florida.....							1						
Idaho.....			2									2	5
Illinois.....	1	1		2	1	1	5	5	11			2	5
Indiana.....					2		6	2				2	
Iowa.....	1			2					2				
Kansas.....	1												
Louisiana.....							1						
Maine.....							1						
Maryland.....							7			1	1		
Massachusetts.....	6	2	2	1	1	31	4	9	1	1	1	2	
Michigan.....	1	1		1		8	2	6	2				
Minnesota.....		2											
Mississippi.....			1										
Missouri.....				6	2	1	6	3	5		1	3	
Nebraska.....						3	2						
New Hampshire.....						1				2			
New Jersey.....	4			1	1	3	21	6	9				1
New York.....	4	7	2	10	1	3	29	2	10	1			8
North Carolina.....										1			
Ohio.....	1			1	2	3	40	4	26	2			3
Oklahoma.....	1												
Oregon.....			3		2		1						2
Pennsylvania.....	6	5	1	2	4	30	1	23			2		2
Porto Rico.....				1						2	1		
Rhode Island.....				1			4			3			
Tennessee.....							5						
Texas.....	2												1
Vermont.....							1						
Virginia.....							2						
Washington.....			23							1			
West Virginia.....		1		2			2						
Wisconsin.....			2				6	4	2				
Total.....	12	28	44	32	15	23	236	36	130	8	10	29	

LOCKOUTS.

Illinois.....		1								1	1		1
Indiana.....											1		
Iowa.....													
Massachusetts.....													
Michigan.....													
Minnesota.....													
Missouri.....													1
North Carolina.....													
Ohio.....	1				1			3			1		
Oregon.....										1			
Pennsylvania.....													
Tennessee.....		1						1			1		
Wisconsin.....													
Total.....	1	2		1				8	2	3	1	2	

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES,
1916—Continued.

STRIKES.

States, etc.	Miners.		Musicians and theatrical employees.			Pa- per mak- ers.	Pa- per goods mak- ers.	Railroad employees.					
	Coal.	Ore.	Moving pic- ture oper- ators.	Musi- cians.	Stage em- ploy- ees.			La- bor- ers.	Sec- tion hands.	Shop- men.	Train- men.	Yard- men.	Clerks.
Alaska.....								3					
Alabama.....			1										
Arizona.....		5											
Arkansas.....	7	2							2				
California.....	4	1	1	1					1	1			
Colorado.....	3						4		1	2			
Connecticut.....			1	1							1		
District of Columbia.....												1	1
Illinois.....	4	1		1	1			3	2	3			
Indiana.....	18								1		1	1	
Iowa.....	1												
Kansas.....	3	2											
Kentucky.....	6									1			
Louisiana.....					1								
Maine.....							3	1					
Maryland.....													
Massachusetts.....			1	1			15	4		6			
Michigan.....	4									1			
Minnesota.....		2											
Mississippi.....											2		
Missouri.....	3	3											
Nebraska.....			1		1								
New Hampshire.....													
New Jersey.....				1			2		4	1			1
New York.....		1	1	2	1		4	1	2	5	4	8	1
Ohio.....	28						4		1	2			2
Oklahoma.....	5	3			2								1
Pennsylvania.....	266		1						2	6	9		1
Porto Rico.....													
Rhode Island.....			1										
Tennessee.....	1		2										
Texas.....	2		2								2		1
Vermont.....													
Virginia.....							1						
Washington.....	4	2					1			1			
West Virginia.....	14							5		1	2		1
Wisconsin.....	1								1				
Interstate.....													
Total.....	367	28	12	7	7	40	8	17	35	22	16	6	6

LOCKOUTS.

Kentucky.....	1						1						
Michigan.....								1					
New Jersey.....													
Pennsylvania.....	2												
Washington.....					1		1						
West Virginia.....							1						
Total.....	3				1	2	1						

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1916—Continued.

STRIKES.

States, etc.	Pot-	Photo-	Print-	Rub-	Ship-	Sta-	Ste-	Stone		Street	Street	Tele-
	ters.	en-	ing	ber	build-	tion-	am-	Gran-	work-	and	rail-	graph
		grav-	and	work-	ers.	ary	boat	ite	ers.	sewer	way	and
Alabama.....												
Arkansas.....												1
California.....					3		3	1				1
Canal Zone.....							1	2				
Connecticut.....				1	1		1	2			4	2
Delaware.....				1							1	
Dist. Columbia.....												1
Florida.....							1				1	
Georgia.....					1				1		1	2
Hawaii.....							1					
Illinois.....	2		1				1			1	2	2
Indiana.....	1		1			1		1		1	1	1
Iowa.....										1		
Kentucky.....										1		1
Louisiana.....			1									
Maine.....							1	2	1			2
Maryland.....			2		2							
Massachusetts.....		1	9	1	4	11	5	2	4			
Michigan.....		1		1								
Minnesota.....		1					4					2
Missouri.....		1				2				2	4	2
Montana.....							2				1	
Nebraska.....			1				2					
New Hampshire.....							4	1				
New Jersey.....	3			7	3	1				1	3	
New York.....	2		5	3	4	2	19	4	2	5	11	2
North Carolina.....			1					1			1	
Ohio.....	9	1	2	3		2	3	1	3	5	3	4
Oklahoma.....								1			2	
Oregon.....						2		1		1		
Pennsylvania.....	2		3	3	1	1	1	1		3	5	
Porto Rico.....							1			2		1
Rhode Island.....				6	1		2	1		3		
South Carolina.....											1	
Tennessee.....			1								2	
Texas.....			1								3	2
Utah.....								1				1
Vermont.....								3	3			1
Virginia.....					2						1	
Washington.....		1			2		2	1				1
West Virginia.....						2	1				1	
Wisconsin.....								2	5			
Total.....	119		2	23	34	23	15	50	38	18	35	53
												423

LOCKOUTS.

Connecticut.....				1								
Dist. Columbia.....				1				1				
Illinois.....												
Indiana.....				1					1			1
Maryland.....												1
Massachusetts.....												
Michigan.....			2									
New Jersey.....	1											
New York.....				1					1			1
Ohio.....								1			1	2
Virginia.....											1	
Total.....	1	1	4	1		1		52			3	4

¹ Including 2 of aluminum workers.² 6 of printers, 3 of pressmen, 11 of bookbinders, 2 of newsboys, and 1 of electrotypers.³ Including 14 of paving cutters and 3 of marble cutters.⁴ Including 13 of linemen, 8 of messengers, and 1 of telephone operators.⁵ Including 1 of paving cutters.

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED OCCUPATIONS, BY STATES, 1916—Continued.

STRIKES.

States, etc.	Textile workers.								To-bacco work- ers.	Trunk and bag mak- ers.	Wait- ers, cooks, and bartend- ers.	Mis- cel- lane- ous work- ers.	Oc- cupa- tion not re- port- ed.
	Car- pet mak- ers.	Cot- ton and wool- en work- ers.	Dyers.	Ho- siery and knit- goods work- ers.	Lace work- ers.	Print- ers.	Silk work- ers.	Oc- cupa- tions not speci- fied.					
Alabama.....											1		
Arizona.....											1		
California.....											3		1
Colorado.....											1		
Connecticut.....	7			2		1	4		3		1	2	1
Delaware.....											1		
District of Co- lumbia.....											1		
Florida.....									4		1		
Illinois.....	1								4		1	3	
Indiana.....								1			2		
Iowa.....		1									3		
Maine.....	4										1		
Maryland.....			1								2		
Massachusetts.....	1	52				4		1	2		4	19	2
Michigan.....	1								2			1	2
Mississippi.....	1												
Missouri.....									3		4		
Montana.....											1		1
Nebraska.....												1	
New Hampshire.....	2							3					1
New Jersey.....	1	12		2	1		16	4	7	1	1	7	3
New York.....	1	3	2	1	1		6	3	10		9	37	
North Carolina.....				1				2					
Ohio.....								1	5		1	13	
Oklahoma.....											2		
Oregon.....												3	
Pennsylvania.....	1	4	2	7			21	4	7	1	3	19	
Porto Rico.....									5			1	
Rhode Island.....	13	1				2	6	7				3	3
South Carolina.....	3												
Tennessee.....	2								2		1		
Texas.....											2		
Virginia.....												1	
West Virginia.....	1											1	
Wisconsin.....				3				1	2			2	
Total.....	4	106	7	16	2	7	53	27	59	2	140	120	14

LOCKOUTS.

Illinois.....										1			
Massachusetts.....								1		1			
New Jersey.....						1							
New York.....											1		
Ohio.....										1			
Pennsylvania.....													
Rhode Island.....													1
Total.....						1	1		1	2	1		2

¹ Including 11 of waiters, 15 of waiters and cooks, 3 of cooks, and 3 of bartenders alone.

EMPLOYMENT IN SELECTED INDUSTRIES IN FEBRUARY, 1917.

Current reports received by the bureau from representative establishments concerning volume of employment show that in 11 of the 13 industries covered by the inquiry the number of employees on the pay roll was greater in February, 1917, than in February, 1916. The greatest increase shown (21 per cent) is in the iron and steel industry. The two industries showing a decrease are cotton manufacturing and woolen manufacturing. The figures in the men's ready-made clothing industry are somewhat affected by strikes occurring in February, 1917, in two establishments, in one instance causing a total shutdown. One establishment in this industry also had the manufacturing department closed in February, 1917.

The amount of money paid to employees in February, 1917, was greater than in February, 1916, in each of the 13 industries. The greatest increase reported is 37.8 per cent for the iron and steel industry.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN FEBRUARY, 1916, AND FEBRUARY, 1917.

Industry.	Establishments to which inquiries were sent.	Establishments reporting for February, both years.	Period of pay roll.	Number on pay roll in February.		Per cent of increase (+) or decrease (-).	Amount of pay roll in February.		Per cent of increase (+) or decrease (-).
				1916	1917		1916	1917	
Boots and shoes.....	85	68	1 week ..	56,499	60,226	+ 6.6	733,745	865,498	+18.0
Cotton manufacturing.....	89	53	...do.....	53,904	53,242	- 1.2	485,170	570,032	+17.5
Cotton finishing.....	19	14	...do.....	12,413	13,007	+ 4.8	143,066	177,467	+24.0
Hosiery and under-wear.....	82	56	...do.....	28,895	29,913	+ 3.5	276,728	311,839	+12.7
Woolen.....	56	50	...do.....	46,741	46,341	- 0.9	519,449	617,981	+19.0
Silk.....	64	46	2 weeks ..	21,753	22,528	+ 3.6	472,771	537,239	+13.6
Men's ready-made clothing.....	87	35	1 week ..	19,333	21,109	+ 9.2	277,839	327,019	+17.7
Iron and steel.....	142	103	½ month ..	165,299	199,931	+21.0	5,962,473	8,218,899	+37.8
Car building and repairing.....	79	27	...do.....	35,406	38,268	+ 8.1	1,076,431	1,188,528	+10.4
Cigar manufacturing.....	104	53	1 week ..	17,053	17,636	+ 3.4	191,913	230,208	+20.0
Automobile manufacturing.....	69	35	...do.....	93,555	111,971	+19.7	1,816,689	2,432,572	+33.9
Leather manufacturing.....	44	30	...do.....	13,855	14,937	+ 7.8	175,209	227,343	+29.8
Paper making.....	68	46	...do.....	23,634	26,304	+11.3	309,466	382,401	+23.6

The following table is based on reports from a very much smaller number of establishments as to the number of employees actually working on the last full day of the reported pay period in February, 1917, and February, 1916. All industries are covered, but some are poorly represented.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN FEBRUARY, 1916 AND FEBRUARY, 1917.

Industry.	Establishments reporting for February both years.	Period of pay roll.	Number actually working on last full day of reported pay period in February—		Per cent of increase (+) or decrease (-).
			1916	1917	
Boots and shoes.....	26	1 week..	17,161	17,160	- (1)
Cotton manufacturing.....	29	...do....	17,584	19,884	+13.1
Cotton finishing.....	9	...do....	6,065	6,157	+ 1.5
Hosiery and underwear.....	9	...do....	7,439	7,686	+ 3.3
Woolen.....	38	...do....	34,827	34,332	- 1.4
Silk.....	27	2 weeks.	11,078	12,123	+ 9.4
Men's ready-made clothing.....	9	1 week..	1,739	1,581	- 9.1
Iron and steel.....	95	½ month.	139,297	165,184	+18.6
Car building and repairing.....	23	...do....	31,428	31,097	- 1.1
Cigar manufacturing.....	22	1 week..	4,281	4,561	+ 6.5
Automobile manufacturing.....	16	...do....	46,604	61,817	+32.6
Leather manufacturing.....	10	...do....	6,122	6,529	+ 6.6
Paper making.....	13	...do....	8,348	8,492	+ 1.7

¹ Less than one-tenth of 1 per cent.

The figures in the next table show that in 7 of the 13 industries listed there were more employees on the pay roll in February, 1917, than in January, 1917, while a decrease in the number on the pay roll is shown in six industries. The figures in the men's ready-made clothing industry are somewhat affected by two strikes, one occurring in February, 1917, and one in January, 1917. The number of employees out on account of these strikes was greater in February, 1917, than in January, 1917.

In seven of the listed industries employees received more money in February, 1917, than in January, 1917. The greatest increase was 9 per cent in automobile manufacturing. In six industries less money was paid to employees in February, 1917, than in January, 1917. The greatest decrease was 1.6 per cent for the iron and steel industry.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JANUARY, 1917, AND FEBRUARY, 1917.

Industry.	Establishments to which inquiries were sent.	Establishments reporting for January and February.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (-).	Amount of pay roll in—		Per cent of increase (+) or decrease (-).
				January, 1917.	February, 1917.		January, 1917.	February, 1917.	
Boots and shoes.....	85	76	1 week..	66,553	66,714	+0.2	946,761	962,607	+1.7
Cotton manufacturing.....	89	48	...do....	48,347	48,409	+ .1	503,615	511,437	+1.6
Cotton finishing.....	19	14	...do....	13,177	13,070	- .8	179,134	178,123	- .6
Hosiery and underwear.....	82	52	...do....	27,717	27,953	+ .9	287,780	283,694	-1.4
Woolen.....	56	44	...do....	38,235	37,952	- .7	525,262	519,256	-1.1
Silk.....	64	46	2 weeks.	18,392	18,242	- .8	418,464	429,057	+2.5
Men's ready-made clothing.....	87	37	1 week..	24,604	24,497	- .4	354,546	373,281	+5.3
Iron and steel.....	142	99	½ month	190,213	191,847	+ .9	7,936,830	7,812,613	-1.6
Car building and repairing.....	79	28	...do....	38,758	39,049	+ .8	1,232,396	1,215,185	-1.4
Cigar manufacturing.....	104	54	1 week..	18,130	18,340	+1.2	218,072	221,022	+1.4
Automobile manufacturing.....	69	30	...do....	90,222	90,717	+ .5	1,815,946	1,979,062	+9.0
Leather manufacturing.....	44	25	...do....	12,856	12,552	-2.4	182,032	186,659	+2.5
Paper making.....	68	40	...do....	21,471	21,255	-1.0	314,325	312,492	- .6

The next table gives in comparable form for the 13 industries the number of employees reported as actually working on the last full day of the reported pay period in January and February, 1917. It should be noted that a much smaller number of establishments reported for this item than the number of establishments reporting in the table immediately preceding.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN JANUARY AND FEBRUARY, 1917.

Industry.	Establishments reporting for January and February.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (-).
			January, 1917.	February, 1917.	
Boots and shoes.....	29	1 week..	18,173	18,084	-0.5
Cotton manufacturing.....	32	...do....	23,431	23,497	+.3
Cotton finishing.....	10	...do....	8,875	8,842	-.4
Hosiery and underwear.....	17	...do....	11,277	11,255	-.2
Woolen.....	38	...do....	34,278	34,487	+.6
Silk.....	24	2 weeks..	11,285	11,067	-1.9
Men's ready-made clothing.....	9	1 week..	12,151	12,027	-1.0
Iron and steel.....	94	½ month..	163,505	165,277	+1.1
Car building and repairing.....	26	...do....	32,724	33,983	+3.8
Cigar manufacturing.....	21	1 week..	4,422	4,480	+1.3
Automobile manufacturing.....	16	...do....	70,477	69,814	-.9
Leather manufacturing.....	9	...do....	5,694	5,511	-3.2
Paper making.....	11	...do....	8,689	8,481	-2.4

CHANGES IN WAGE RATES.

The changes in wage rates reported as occurring in the month January 15, 1917, to February 15, 1917, in the 13 industries from which volume of employment schedules were received, were limited to 10 industries. The three industries in which no changes were reported were cotton manufacturing, cotton finishing, and silk manufacturing. In the case of establishments that failed to answer the inquiry as to wage-rate changes, it is probably safe to assume that no changes were made.

The industry of leather manufacturing furnished the greatest number of reported changes. An increase of 5 to 20 per cent to about 20 per cent of the force was reported by one establishment in this industry. Another establishment reported an increase of 15 per cent to about 10 per cent of the force, still another an increase of 20 per cent to about 1 per cent of the force, while an increase of 15 cents a day to each man was reported in one instance. An attendance bonus of 5 per cent on the month's wages was provided by one establishment with the further provision of an additional bonus of 5 per cent for steady attendance of three months or more beginning with January 1, 1917.

In the industry of men's ready-made clothing, one establishment reported an increase of 2 per cent to about 68 per cent of the force. Three establishments reported an increase of 10 per cent. In one case this increase was applied to all except foremen, in another instance to 75 per cent of the force, and in the third case, where there was also a reduction of hours from 50 to 48, the proportion of the force receiving the increase was not stated.

Two establishments in the industry of boot and shoe manufacturing reported an increase of 10 per cent. One establishment applied the increase to 80 per cent of the force and the other establishment to foremen only. An increase of 20 per cent to dressers and packers—about 2 per cent of the force—was reported by one establishment.

In the car building and repairing industry one establishment granted an increase of $4\frac{1}{2}$ per cent to all; another establishment an increase of $5\frac{1}{2}$ per cent to all, and a third establishment an increase of $1\frac{1}{2}$ cents an hour to all hourly men.

In the manufacture of automobiles, an increase of 20 per cent to all was made by one establishment, while another establishment made an increase of 6 per cent to trimmers and machinists principally—about 30 per cent of the force.

In the iron and steel industry, one establishment reported an increase of 5 per cent, but did not state the proportion of the force receiving this increase, while another establishment reported a "small increase" to all tonnage men.

In the manufacture of paper a "bonus" is reported by two establishments. In one case it was a 5 per cent bonus on 1916 wages, this bonus payment being in addition to previous bonus payments of 20 per cent on wages for 1916. In the other instance it was a bonus of 10 per cent on January wages. One establishment reported an increase of wages of 7 to 10 per cent to 60 to 75 per cent of the force.

The cigar manufacturing, hosiery, and underwear, and woolen industries each reported an increase in one establishment. In cigar manufacturing it was a 10 per cent increase to all employees. There was a like increase in the hosiery and underwear establishment, while in the one woolen mill there was an increase of 85 cents a week to 15 burliers, about 5 per cent of the force.

Reports from six clothing establishments show \$16,494 paid for contract work in February, 1917, as against \$16,007 in February, 1916. Reports from six clothing establishments, not entirely identical with the six that reported for February, 1917, and February, 1916, figures show \$17,066 paid for contract work in February, 1917, as against \$15,973 in January, 1917. Owing to the small number of clothing establishments answering the inquiry as to contract work, the bureau reluctantly will discontinue it from future monthly inquiries.

EMPLOYMENT IN THE STATE OF NEW YORK IN FEBRUARY, 1917.

The labor market in New York State is reviewed in the following statement issued by the Bureau of Statistics and Information of the New York State Department of Labor:

MANUFACTURING ACTIVITY IN FEBRUARY.

[Reported by 1,600 representative firms with over a half million employees, or one-third of the factory workers in the State, and a weekly pay roll of over \$8,000,000.]

Manufacturing activity in New York State in February was slightly greater than in January. An increase of less than 1 per cent in number of employees and of 1 per cent in amount of wages paid was reported. The more or less general observance of a holiday during the pay-roll period included in this report had some effect on the volume of wages. Six of the groups reported increases both in employees and in wages, while two groups only reported decreases in both respects. The changes of most importance were increases of 3 per cent in employees and 9 per cent in wages in the clothing group, and a decrease (negligible in amount) in employees, and of more than 1 per cent in wages in the metals-machinery-conveyances group. The latter is much the largest of the groups, both in employees and in wages, and clothing is the second largest, hence these two groups have large weight in the returns. With the exception of December, 1916, activity in all the groups combined was greater, however, than in any other month since these returns have been received beginning in June, 1914.

As compared with February of last year, there was an increase of 8 per cent in number of employees and 20 per cent in volume of wages. As compared with February, two years ago, the increases were 29 and 58 per cent, respectively.

The average earnings for one week of all employees, including females, were in February, \$15.31 as against \$15.26 in January. The average earnings for one week in February, one year ago, were \$13.77, and in February, two years ago, \$12.41.

The *stone, clay, and glass products* group employed in February 1 per cent more workers and paid out 3 per cent more wages than in January. The increase was chiefly in the miscellaneous stone and mineral industry. As compared with February, 1916, the group as a whole had 19 per cent more employees and paid out 44 per cent more wages.

The *metals, machinery, and conveyances* group reported in February a negligible decrease in employees and a decrease of more than 1 per cent in wages as compared with January. Pig iron and rolling mill products were more active, as well as the manufacture of automobiles and parts. There was lessened activity in other industries, notably in the manufacture of firearms. As compared with February, 1916, the group as a whole, employed 13 per cent more workers and paid out 23 per cent more wages.

The *wood manufactures* group underwent almost no changes in February. Increased activity in the manufacture of musical instruments was offset by a decrease in the sawing of lumber and the manufacture of house trim. As compared with February, one year ago, the group had 5 per cent more employees and paid out 15 per cent more wages.

The *furs, leather, and rubber goods* group reported a volume of wages nearly 1 per cent larger and a negligible increase in employees. The only industries with a smaller volume of wages were furs and fur goods and the manufacture of pearl buttons. The manufacture of footwear, which is the dominant industry in the group, reported an increase of 1 per cent in wages. As compared with

February, 1916, the group had 7 per cent more employees and paid out 23 per cent more wages.

The *chemicals* group reported an increase of 1 per cent both in employees and wages in February as compared with January, thereby establishing a new high record for employees and equaling the high record of December, 1916, for wages. The increase was chiefly in the production of photographic materials and motion-picture films. There was in the group as a whole an increase of 13 per cent in employees and 29 per cent in wages as compared with February one year ago.

The *paper* industry reported in February a decrease of nearly 1 per cent in employees and nearly 3 per cent in wages as compared with January. This group employed 16 per cent more workers than in February of last year and paid out 30 per cent more wages.

The *printing and paper goods* group reported no change in number of employees in February, but a decrease of nearly 2 per cent in wages. As compared with February of last year, the group had 4 per cent more employees and paid out 30 per cent more wages.

The *textiles* group in February reported increases as compared with January of approximately 1 per cent in employees and 2 per cent in wages, thereby establishing new high records in both respects. Each industry except cotton goods reported increases in both employees and wages. As compared with February one year ago, the group had 4 per cent more employees and paid out 16 per cent more wages.

The *clothing, millinery, and laundering* group had, in February, 3 per cent more workers and paid out 9 per cent more wages than in January. This established a new high record in wages for the second largest reporting group. The increase was shared in generally by the industries composing the group but was especially pronounced in women's clothing. The group as a whole had 4 per cent more workers and paid out 16 per cent more wages than in February of last year.

The *food, liquors, and tobacco* group had, in February, approximately 1 per cent more employees and paid out 1 per cent more wages than in January. Sugar refineries, despite interference caused by strikes, paid out more wages than in the previous month, which was somewhat below normal. Bread and bakery products were more active but flour and cereals were less active. As compared with February, 1916, the group employed 2 per cent more workers and paid out 14 per cent more wages.

The *water, light, and power* industry reported no change in employees and a slight decrease in wages as compared with January. As compared with February one year ago, there were 7 per cent more employees and 15 per cent more wages were paid.

BUILDING ACTIVITY IN PRINCIPAL CITIES.

[Reported by building departments.]

The estimated cost of building work (of which new buildings constituted 85 per cent), for which permits were issued in February, 1917, in the 10 first and second class cities of the State, was 21 per cent greater than in the previous month and 13 per cent greater than in the same month one year ago. The value of the permits issued in February of this year in New York City was 88 per cent of the total issued in the entire State. As compared with January, four cities only—Rochester, Troy, Utica, and Yonkers—reported decreases. As compared with February, 1916, five cities—Binghamton, Buffalo, Rochester, Utica, and Yonkers—reported decreases.

**WORK OF STATE AND MUNICIPAL EMPLOYMENT OFFICES IN
THE UNITED STATES AND OF PROVINCIAL EMPLOYMENT BU-
REAU IN CANADA.**

Data are presented in the following table for February, 1916, and February, 1917, relative to the operations of public employment offices. Figures furnished for the United States are for State employment bureaus in 14 States, municipal employment bureaus in 7 States, State-city employment bureaus in 2 States, and a city-private employment bureau in 1 State. Figures are also given for 2 Canadian employment bureaus.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, 1916 AND 1917.
UNITED STATES.

State and city.	Appli- ca- tions from em- ployers.	Persons asked for by em- ployers.	Persons applying for work.		Persons referred to posi- tions.	Positions filled.
			New regis- trations.	Re- newals.		
California (municipal):						
Berkeley—						
February, 1916.....	142	150	189	553	146	148
February, 1917.....	206	229	137	496	229	229
Sacramento—						
February, 1916.....	175	(1)	55	(1)	234	234
February, 1917.....	143	220	62	(1)	(1) *	220
California (State-city):						
Los Angeles—						
February, 1916.....	(1)	4,514	2,329	(1)	5,644	4,207
February, 1917.....	2,255	3,590	1,950	(1)	3,462	2,874
California (State):						
Oakland—						
February, 1916.....	116	132	1,140	(1)	116	93
February, 1917.....	581	697	419	(1)	687	521
Sacramento—						
February, 1916.....	40	53	809	(1)	52	43
February, 1917.....	214	471	302	(1)	392	347
San Francisco—						
February, 1916.....	161	224	3,359	(1)	225	136
February, 1917.....	1,106	2,121	1,718	(1)	2,045	1,259
Total:						
February, 1916.....					6,417	4,859
February, 1917.....					3 6,815	5,450
Colorado (State):						
Colorado Springs—						
February, 1916.....	(1)	348	590	(1)	337	(1)
February, 1917.....	383	383	519	(1)	519	343
Denver No. 1—						
February, 1916.....	(1)	145	186	(1)	95	(1)
February, 1917.....	50	50	150	(1)	150	82
Denver No. 2—						
February, 1916.....	(1)	159	277	(1)	159	(1)
February, 1917.....	36	74	160	(1)	160	74
Pueblo—						
February, 1916.....	(1)	156	187	(1)	149	(1)
February, 1917.....	189	189	261	(1)	261	184
Total:						
February, 1916.....					740	(1)
February, 1917.....					1,090	683
Connecticut (State):						
Bridgeport—						
February, 1916.....	383	(1)	(1)	(1)	(1)	335
February, 1917.....	554	(1)	(1)	(1)	(1)	493

¹ Not reported. ² Includes Los Angeles district, 8 counties. ³ Exclusive of Sacramento, not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, 1916 AND 1917—Continued.
UNITED STATES—Continued.

State and city.	Appli- ca- tions from em- ployers.	Persons asked for by em- ployers.	Persons applying for work.		Persons referred to posi- tions.	Positions filled.
			New regis- trations.	Re- newals.		
Connecticut (State)—Concluded.						
Hartford—						
February, 1916.....	550	(1)	(1)	(1)	(1)	460
February, 1917.....	636	(1)	(1)	(1)	(1)	470
New Haven—						
February, 1916.....	451	(1)	(1)	(1)	(1)	325
February, 1917.....	711	(1)	(1)	(1)	(1)	598
Norwich—						
February, 1916.....	161	(1)	(1)	(1)	(1)	156
February, 1917.....	192	(1)	(1)	(1)	(1)	180
Waterbury—						
February, 1916.....	179	(1)	(1)	(1)	(1)	92
February, 1917.....	154	(1)	(1)	(1)	(1)	123
Total:						
February, 1916.....					(1)	1,368
February, 1917.....					(1)	1,864
Illinois (municipal):						
Chicago—						
February, 1916.....	31	725	600	(1)	725	485
February, 1917.....	15	34	500	(1)	34	15
Illinois (State):						
Chicago—						
February, 1916.....	(1)	4,481	(1)	2 5,673	(1)	4,085
February, 1917.....	3,448	11,644	11,158	1,018	11,993	9,048
East St. Louis—						
February, 1916.....	(1)	1,288	(1)	2 1,327	(1)	781
February, 1917.....	466	871	348	457	788	725
Peoria—						
February, 1916.....	(1)	677	(1)	2 645	(1)	550
February, 1917.....	592	733	118	574	655	650
Rock Island-Moline—						
February, 1916.....	(1)	504	(1)	2 488	(1)	349
February, 1917.....	289	552	288	224	366	80
Rockford—						
February, 1916.....	(1)	879	(1)	2 931	(1)	681
February, 1917.....	419	693	418	193	512	455
Springfield—						
February, 1916.....	(1)	320	(1)	2 438	(1)	320
February, 1917.....	250	311	153	187	282	262
Total:						
February, 1916.....					(1)	7,251
February, 1917.....					14,630	11,235
Indiana (State):						
Evansville—						
February, 1916.....	(1)	123	2 212	(1)	125	118
February, 1917.....	202	238	117	19	296	238
Fort Wayne—						
February, 1916.....	(1)	138	2 197	(1)	134	119
February, 1917.....	331	547	161	306	517	467
Indianapolis—						
February, 1916.....	(1)	162	2 300	(1)	155	145
February, 1917.....	704	704	705	30	672	643
South Bend—						
February, 1916.....	(1)	311	2 413	(1)	248	228
February, 1917.....	125	713	379	30	350	282
Total:						
February, 1916.....					662	610
February, 1917.....					1,835	1,630
Iowa (State):						
Des Moines—						
February, 1917.....						
Kansas (State):						
Topeka—						
February, 1916.....	18	26	108		30	17
February, 1917.....	95	110	130	5	101	90

¹ Not reported.² New registrations and renewals.³ Number applying for work.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, 1916 AND 1917—Continued.

UNITED STATES—Continued.

State and city.	Appli- ca-tions from em- ployers.	Persons asked for by em- ployers.	Persons applying for work.		Persons referred to posi- tions.	Positions filled.
			New regis- tra-tions.	Re- newals.		
Kentucky (city private):						
Louisville—						
February, 1916.....	(1)	112	317	802	114	62
February, 1917.....		333	430	698	358	141
Kentucky (State):						
Louisville—						
February, 1916.....	60	60	2 278	(1)	60	60
February, 1917.....	110	110	219	(1)	110	110
Total:						
February, 1916.....					174	122
February, 1917.....					468	251
Massachusetts (State):						
Boston—						
February, 1916.....	1,462	1,782	3 1,008	(1)	4 2,914	1,366
February, 1917.....	1,434	1,673	3 871	(1)	4 2,541	1,134
Fall River—						
February, 1916.....	126	148	3 33	(1)	4 134	117
February, 1917.....	110	119	3 15	(1)	4 96	90
Springfield—						
February, 1916.....	578	765	3 270	(1)	4 958	637
February, 1917.....	661	930	3 267	(1)	4 973	681
Worcester—						
February, 1916.....	734	943	3 526	(1)	4 1,182	563
February, 1917.....	745	930	3 431	(1)	4 1,145	619
Total:						
February, 1916.....					4 5,188	2,683
February, 1917.....					4 4,755	2,524
Michigan (State):						
Battle Creek—						
February, 1916.....	97	309	2 189	(1)	169	155
February, 1917.....	30	96	2 70	(1)	63	63
Bay City—						
February, 1916.....	20	144	2 73	(1)	26	24
February, 1917.....	33	110	2 128	(1)	79	76
Detroit—						
February, 1916.....	1,562	3,984	2 3,615	(1)	3,596	3,596
February, 1917.....	297	540	2 538	(1)	514	514
Flint—						
February, 1916.....	564	564	3 564	(1)	564	564
February, 1917.....	380	380	(1)	(1)	380	380
Grand Rapids—						
February, 1916.....	464	676	2 681	(1)	647	647
February, 1917.....	309	3,083	2 3,007	(1)	3,007	3,007
Jackson—						
February, 1916.....	501	689	2 640	(1)	620	585
February, 1917.....	328	516	2 540	(1)	512	506
Kalamazoo—						
February, 1916.....	265	265	2 265	(1)	265	265
February, 1917.....	200	268	2 300	(1)	267	267
Lansing—						
February, 1916.....	34	194	2 207	(1)	135	135
February, 1917.....	37	85	2 73	(1)	56	56
Muskegon—						
February, 1916.....	128	333	2 324	(1)	258	237
February, 1917.....	52	119	2 132	(1)	117	100
Saginaw—						
February, 1916.....	601	601	577	(1)	577	577
February, 1917.....	94	469	480	(1)	450	450
Total:						
February, 1916.....					6,857	6,785
February, 1917.....					5,445	5,419
Minnesota (State):						
Duluth—						
February, 1916.....	(1)	(1)	(1)	(1)	(1)	485
February, 1917.....						604

¹ Not reported.² Number applying for work.³ Number who were registered.⁴ Number of offers of positions.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, 1916 AND 1917—Continued.

UNITED STATES—Continued.

State and city.	Appli-cations from em-ployers.	Persons asked for by em-ployers.	Persons applying for work.		Persons referred to posi-tions.	Positions filled.
			New regis-trations.	Re-newals.		
Minnesota (State)—Concluded.						
Minneapolis—						
February, 1916.....	(1)	(1)	(1)	(1)	(1)	1,266
February, 1917.....	(1)	(1)	(1)	(1)	(1)	1,126
St. Paul—						
February, 1916.....	(1)	(1)	(1)	(1)	(1)	715
February, 1917.....	(1)	(1)	(1)	(1)	(1)	627
Total:						
February, 1916.....	(1)	(1)	(1)	(1)	(1)	2,466
February, 1917.....	(1)	(1)	(1)	(1)	(1)	2,357
Missouri (State):						
Kansas City—						
February, 1916.....	(1)	135	2 192	(1)	(1)	132
February, 1917.....	484	923	807	(1)	834	674
St. Joseph—						
February, 1916.....	(1)	432	2 361	(1)	(1)	359
February, 1917.....	(1)	798	734	(1)	(1)	727
St. Louis—						
February, 1916.....	(1)	364	2 451	(1)	(1)	283
February, 1917.....	396	831	435	(1)	634	617
Total:						
February, 1916.....					(1)	774
February, 1917.....					(1)	2,018
New York (municipal):						
New York City—						
February, 1916.....	1,467	1,639	1,805	(1)	536	1,356
February, 1917.....	2,374	2,737	2,186	1,958	3,310	2,124
New York (State):						
Albany—						
February, 1916.....	260	311	394	265	446	208
February, 1917.....	407	501	415	326	645	368
Brooklyn—						
February, 1916.....	940	1,559	1,447	428	1,659	902
February, 1917.....	1,355	1,728	968	579	1,806	1,174
Buffalo—						
February, 1916.....	540	779	646	357	855	520
February, 1917.....	815	1,795	1,284	165	1,571	1,131
Rochester—						
February, 1916.....	644	950	619	381	1,005	439
February, 1917.....	1,078	1,582	709	363	1,397	793
Syracuse—						
February, 1916.....	477	624	493	123	621	460
February, 1917.....	870	1,260	727	260	1,172	766
Total:						
February, 1916.....					5,122	3,885
February, 1917.....					9,901	6,356
Ohio (State-city):						
Akron—						
February, 1916.....	(1)	1,309	619	1,662	1,149	880
February, 1917.....	(1)	1,860	735	1,682	1,545	1,298
Cincinnati—						
February, 1916.....	(1)	1,288	1,614	4,488	1,274	776
February, 1917.....	(1)	1,376	1,101	2,703	1,403	976
Cleveland—						
February, 1916.....	(1)	6,267	2,006	8,166	4,485	3,484
February, 1917.....	(1)	6,216	2,307	6,787	5,434	4,315
Columbus—						
February, 1916.....	(1)	1,474	777	2,506	1,465	1,129
February, 1917.....	(1)	1,787	569	2,032	1,677	1,419
Dayton—						
February, 1916.....	(1)	959	684	1,209	769	719
February, 1917.....	(1)	840	498	1,011	729	616
Toledo—						
February, 1916.....	(1)	2,559	1,029	2,291	2,076	1,544
February, 1917.....	(1)	1,730	908	2,179	1,619	1,380

¹ Not reported.² Number applying for work.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, 1916 AND 1917—Continued.

UNITED STATES—Continued.

State and city.	Appli- ca- tions from em- ployers.	Persons asked for by em- ployers.	Persons applying for work.		Persons referred to pos- itions.	Positions filled.
			New regis- trations.	Re- newals.		
Ohio (State-city)—Concluded.						
Youngstown—						
February, 1916.....	(1)	973	720	960	972	765
February, 1917.....	(1)	1,106	669	787	1,115	997
Total:						
February, 1916.....					12,190	9,297
February, 1917.....					13,522	11,001
Oklahoma (State):						
Enid—						
February, 1916.....	73	(1)	2 165	(1)	(1)	64
February, 1917.....	(1)	96	2 123	(1)	90	85
Muskogee—						
February, 1916.....	191	(1)	2 199	(1)	(1)	167
February, 1917.....	(1)	282	2 249	(1)	242	218
Oklahoma City—						
February, 1916.....	206	(1)	2 301	(1)	(1)	166
February, 1917.....	(1)	446	2 450	(1)	429	368
Tulsa—						
February, 1916.....	(1)	230	2 216	(1)	(1)	211
February, 1917.....	(1)	874	2 808	(1)	805	806
Total:						
February, 1916.....					(1)	608
February, 1917.....					1,566	1,477
Oregon (municipal):						
Portland—						
February, 1916.....	8,930	(1)	569	2,000	8,717	8,717
February, 1917.....	510	768	259	(1)	(1)	665
Pennsylvania (State):						
Altoona—						
February, 1917.....	(1)	229	35	33	54	50
Harrisburg—						
February, 1916.....	38	131	176	11	304	228
February, 1917.....	(1)	375	207	95	268	223
Johnstown—						
February, 1916.....	(1)	53	59	—	44	31
February, 1917.....	(1)	177	74	25	78	64
Philadelphia—						
February, 1916.....	(1)	777	442	314	446	311
February, 1917.....	(1)	1,173	726	610	1,132	953
Pittsburgh—						
February, 1917.....	(1)	606	536	214	459	499
Total—						
February, 1916.....					794	570
February, 1917.....					3 1,991	3 1,789
Texas (municipal):						
Dallas—						
February, 1916.....	157	180	4 72	12	184	180
February, 1917.....	198	299	298	18	383	286
Fort Worth—						
February, 1916.....	100	152	211	106	158	149
February, 1917.....	152	291	5 1,554	17	249	238
Total—						
February, 1916.....					342	329
February, 1917.....					632	524
Virginia (municipal):						
Richmond—						
February, 1916.....	227	306	519	(1)	343	120
February, 1917.....	241	389	406	(1)	465	213
Washington (Federal-municipal):						
Tacoma. ⁶						

¹ Not reported.² Number applying for work.³ Including figures for offices at Altoona and Pittsburgh opened since February, 1916.⁴ Includes 180 transient applicants.⁵ Includes 1,295 unwritten registrations.⁶ Figures for this office are carried regularly in the Review under the subject "Federal employment work of the Department of Labor," to which the reader is referred.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, 1916 AND 1917—Concluded.

UNITED STATES—Concluded.

State and city.	Appli-cations from em-ployers.	Persons asked for by em-ployers.	Persons applying for work.		Persons referred to posi-tions.	Positions filled.
			New regis-trations.	Re-newals.		
Washington (municipal):						
Everett—						
February, 1916.....	(1)	(1)	(1)	(1)	(1)	498
February, 1917.....	(1)	(1)	(1)	(1)	(1)	242
Seattle—						
February, 1916.....	1,251	3,253	370	(1)	3,246	1,244
February, 1917.....	2,173	3,296	(1)	(1)	3,362	2,957
Spokane—						
February, 1916.....	750	1,165	160	75	1,131	1,131
February, 1917.....	760	1,780	75	10	1,650	1,610
Total:						
February, 1916.....					(1)	2,873
February, 1917.....					(1)	4,839

DOMINION OF CANADA.

Quebec (Province):						
Montreal—						
February, 1917.....	209	423	2 307	(1)	354	311
Quebec—						
February, 1916.....	(1)	89	2 101	(1)	(1)	22
February, 1917.....	(1)	49	2 101	(1)	(1)	36
Total:						
February, 1916.....					(1)	(1)
February, 1917.....					(1)	347

¹ Not reported.² Number applying for work.

FEDERAL EMPLOYMENT WORK OF THE DEPARTMENT OF LABOR.

During January, 1917, the Division of Information of the Bureau of Immigration of the Department of Labor placed 19,735 persons in employment, as compared with 19,260 during December, 1916. Incomplete returns for February—reports from the important office in Newark, N. J., and its subbranches, and from the office in Helena, Mont., not having been received in time to be tabulated—show a total of 15,673 persons placed during the month.

The following statement of the work of the 19 different zones, covering the whole country, gives details for December, 1916, and January, 1917:

SUMMARY OF ACTIVITIES OF UNITED STATES EMPLOYMENT SERVICE FOR THE MONTHS OF DECEMBER, 1916, AND JANUARY, 1917.

Zone number and office.	Opportunities received.				Applications for employment.					
	Applications for help.		Persons applied for.		Applications received.		Referred to employment.		Number actually employed.	
	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.
1. Boston, Mass.....	2	6	101	16	35	49	7	7	7	7
Portland, Me.....										
Total.....	2	6	101	16	35	49	7	7	7	7
2. New York, N. Y. ¹	4,881	6,148	6,756	8,268	6,257	8,067	7,653	9,093	4,798	5,503
Buffalo, N. Y. ²	1,031	948	2,739	1,574	2,445	1,508	2,723	1,808	2,145	1,402
Total.....	5,912	7,096	9,495	9,842	8,702	9,575	10,286	10,901	6,943	6,905
2a. Newark, N. J.....	1,420	1,323	2,426	3,263	3,145	3,140	2,171	2,814	1,831	2,125
Orange, N. J.....	116	150	316	375	171	317	136	255	102	223
Jersey City, N. J.....	185	287	429	826	470	621	322	521	238	460
Total.....	1,721	1,760	3,171	4,464	3,786	4,078	2,629	3,590	2,171	2,808
3. Philadelphia, Pa.....	113	127	336	313	340	549	328	441	265	330
Pittsburgh, Pa.....	18	40	1,079	1,549	721	1,149	354	504	319	443
Wilmington, Del.....	19	19	.....	56	81	157	102	157	79	132
Total.....	150	186	1,415	1,918	1,142	1,855	784	1,102	663	905
4. Baltimore, Md.....	125	107	186	125	205	294	157	214	157	214
5. Norfolk, Va.....	11	23	14	44	124	121	81	79	26	23
6. Jacksonville, Fla.....					32	18	7	2	7	2
Miami, Fla.....	14	24	26	29	88	96	19	30	14	18
Savannah, Ga.....	4	1	30	25	46	20	32	15	20	14
Charleston, S. C.....		2	.....	2	14	155	4	137	4	137
Mobile, Ala.....					4	6				
Total.....	18	27	56	56	184	295	62	184	45	171
7. New Orleans, La.....	55	65	225	125	295	363	237	341	52	75
Gulfport, Miss.....					59	83				
Memphis, Tenn.....	2	.....	130	.....	37	70		5		5
Total.....	57	65	355	125	391	516	237	346	52	80
8. Galveston, Tex.....	7	13	31	13	32	34	10	29	10	19
Houston, Tex.....					23	35				
Albuquerque, N. Mex.....					3					
San Antonio, Tex.....						1				
Total.....	7	13	31	13	58	70	10	29	10	19
9. Cleveland, Ohio.....	6	18	314	22	104	81	84	62	32	14
10. Chicago, Ill.....	389	666	2,398	3,484	2,440	3,646	2,320	3,088	2,283	2,892
Detroit, Mich.....	115	111	774	454	593	470	593	470	571	454
Sault Ste. Marie, Mich.....	8	7	295	438	60	71	41	44	41	44
Indianapolis, Ind.....	195	199	542	592	566	774	479	511	395	423
Total.....	707	983	4,009	4,968	3,659	4,961	3,433	4,113	3,290	3,813
11. Minneapolis, Minn.....	11	20	24	26	47	39	18	12	18	12
12. St. Louis, Mo.....	241	322	707	1,060	555	590	513	656	492	639
Omaha, Nebr.....	182	.....	336	.....		829	.....	326	.....	283
Kansas City, Mo.....	374	411	660	620	799	812	827	697	815	606
Total.....	615	915	1,367	2,016	1,354	2,231	1,340	1,679	1,307	1,528
13. Denver, Colo.....	24	33	24	33	75	78	18	53	18	18
14. Helena, Mont.....	1	.....	1	.....	8	4	1	1	1	1
Moscow, Idaho.....		1	.....	1	.....	1	.....	1	.....	1
Total.....	1	1	1	1	8	5	1	1	1	1

¹ Inclusive of activities in cooperation with the State and municipal employment offices.² Inclusive of activities in cooperation with the State employment office.

SUMMARY OF ACTIVITIES OF UNITED STATES EMPLOYMENT SERVICE FOR THE MONTHS OF DECEMBER, 1916, AND JANUARY, 1917—Concluded.

Zone number and office.	Opportunities received.				Applications for employment.					
	Applications for help.		Persons applied for.		Applications received.		Referred to employment.		Number actually employed.	
	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.	Dec., 1916.	Jan., 1917.
15. Seattle, Wash.....	102	114	183	218	1,776	1,560	118	150	91	122
Aberdeen, Wash.....	7	12	21	38	297	114	21	36	21	36
Bellingham, Wash.....	16	106	34	237	49	307	32	201	31	182
Colfax, Wash.....										
Everett, Wash.....	1	2	1	3	7	5	1	4	1	2
North Yakima, Wash.....	207	201	358	296	598	595	287	257	258	232
Spokane, Wash.....	25	30	42	60	225	199	35	56	34	55
Tacoma, Wash.....	427	335	1,222	677	2,501	1,424	1,204	656	1,176	650
Walla Walla, Wash.....	35	34	68	58	350	321	75	45	38	32
Sumner, Wash.....										
Puyallup, Wash.....										
Wenatchee, Wash.....										
Total.....	820	834	1,929	1,587	5,803	4,525	1,773	1,405	1,650	1,311
16. Portland, Oreg.....	707	601	1,015	829	2,066	1,278	1,059	838	1,006	796
Astoria, Oreg.....	31	20	79	37	412	484	65	35	61	33
Total.....	738	621	1,094	866	2,478	1,762	1,124	873	1,067	829
17. San Francisco, Cal.....	312	471	448	786	860	1,171	467	620	297	371
Reno, Nev.....	27	24	68	44	46	36	47	36	46	36
Total.....	339	495	516	830	906	1,207	514	656	343	407
18. Los Angeles, Cal.....	42	47	46	52	482	315	52	47	22	27
San Diego, Cal.....	439	436	1,257	661	1,596	893	1,665	1,028	1,432	642
Bakersfield, Cal.....	1	6	7	1	7	6	1	1	6	1
Douglas, Ariz.....										
Total.....	482	484	1,309	714	2,085	1,209	1,723	1,076	1,460	670
Grand total.....	11,746	13,687	25,411	27,666	31,146	32,951	24,281	26,382	19,260	19,735

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, FEBRUARY 16 TO MARCH 15, 1917.

Under the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary exercised his good offices between February 16, 1917, and March 15, 1917, in 18 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, were as follows:

NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR
THROUGH ITS COMMISSIONERS OF CONCILIATION, FEB. 16 TO MAR. 15, 1917.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike of polishers, Remington Arms Co., Bridgeport, Conn.....	11,000	.....	Adjusted.
Strike of silk horizontal warpers, Paterson, N. J.....	.....	.....	Pending.
Strike of employees, McAlester-Edwards Coal Co., McAlester, Okla.....	250	.....	Do.
Strike, Visee Silk Mills, Marcus Hook, Pa.....	.....	.....	Do.
Controversy between New York, New Haven & Hartford R. R. Co. and its clerks, New Haven, Conn.—reopened.....	2,250	5,000	Do.
Strike of cigar makers, Philadelphia, Pa.....	.....	.....	Do.
Strike of shirt-waist makers, Philadelphia, Pa.....	.....	.....	Do.
Lockout, Thos. A. Edison Phonograph Co., West Orange, N. J.....	.....	.....	Do.
Strike of car department employees, New York Central Lines, Buffalo and other points in New York.....	2,000	.....	Do.
Strike, National Silk Dyeing Co., Allentown, Pa.....	.....	.....	Do.
Threatened lockout of laboring men in Montana.....	.....	.....	Do.
Strike of coal miners, Blossburg Coal Co., Arnot, Pa.....	.....	.....	Do.
Controversy between Gulf & Ship Island R. R. C. and its carmen, Gulfport, Miss.....	90	250	Do.
Strike of freight clerks and freight handlers, Baltimore & Ohio R. R. Co., Cincinnati, Ohio.....	.....	.....	Do.
Strike of freight clerks and freight handlers, Cincinnati, Hamilton & Dayton R. R. Co., Cincinnati, Ohio.....	.....	.....	Do.
Strike, Atha Tool Co., Newark, N. J.....	.....	.....	Do.
Strike, Robert Palmer Shipyards, Noank, Conn.....	250	.....	Do.
Strike, actors, Boston, Lynn, and Haverhill, Mass.....	.....	.....	Do.

The following cases have been disposed of:

Controversy between Illinois Central R. R. Co. and its maintenance of way employees, Chicago, Ill.: Adjusted.

Strikes of shirt makers, Philadelphia, Pa.: Adjusted.

IMMIGRATION IN JANUARY, 1917.

The number of immigrant aliens admitted to the United States during the year 1916 was 355,767, as compared with 258,678 for the year 1915, an increase of 97,089. There has also been an increase from month to month during 7 of the 12 months. The figures for January and February, 1917, show a decrease of 19.9 and 22.3 per cent, respectively. These facts are brought out in the following table:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS, 1913 TO 1917.

Month.	1913	1914	1915	1916	1917	
					Number.	Per cent increase over pre- ceding month.
January.....	46,441	44,708	15,481	17,293	24,745	1 19.9
February.....	59,156	46,873	13,873	24,740	19,238	1 22.3
March.....	96,958	92,621	19,263	27,586	.....	.....
April.....	136,371	119,885	24,532	30,560	.....	.....
May.....	137,262	107,796	26,069	31,021	.....	.....
June.....	176,261	71,728	22,598	30,764	.....	.....
July.....	138,244	60,377	21,504	25,035	.....	.....
August.....	126,180	37,706	21,949	29,975	.....	.....
September.....	136,247	29,143	24,513	36,398	.....	.....
October.....	134,140	30,416	25,450	37,056	.....	.....
November.....	104,671	26,298	24,545	34,437	.....	.....
December.....	95,387	20,944	18,901	30,902	.....	.....

¹ Decrease.

Classified by races, the number of immigrant aliens admitted to and emigrant aliens departing from the United States during January, 1916 and 1917, was as follows:

IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTING FROM THE UNITED STATES, JANUARY, 1916 AND 1917.

Race.	Admitted.		Departed.	
	January, 1916.	January, 1917.	January, 1916.	January, 1917.
African (black).....	131	265	66	112
Armenian.....	74	127	11	8
Bohemian and Moravian.....	46	32	3	4
Bulgarian, Servian, Montenegrin.....	108	86	8	42
Chinese.....	146	152	266	131
Croatian and Slovenian.....	61	38	3	—
Cuban.....	105	143	120	230
Dalmatian, Bosnian, Herzegovinian.....	5	2	—	—
Dutch and Flemish.....	367	651	52	43
East Indian.....	7	3	20	2
English.....	2,499	3,139	496	370
Finnish.....	284	757	39	97
French.....	1,034	1,751	154	100
German.....	911	1,020	55	47
Greek.....	1,619	1,494	226	136
Hebrew.....	1,477	2,714	12	7
Irish.....	953	1,341	139	78
Italian (north).....	429	347	222	74
Italian (south).....	1,923	2,405	2,253	661
Japanese.....	651	731	65	24
Korean.....	14	18	2	2
Lithuanian.....	59	79	1	—
Magyar.....	108	52	15	—
Mexican.....	57	1,508	50	71
Pacific Islander.....		1	1	—
Polish.....	363	331	14	2
Portuguese.....	714	414	71	139
Roumanian.....	122	70	3	4
Russian.....	519	409	230	420
Ruthenian (Russniak).....	76	134	2	5
Scandinavian.....	604	1,684	104	247
Scotch.....	977	1,258	219	102
Slovak.....	99	31	2	1
Spanish.....	421	910	163	269
Spanish-American.....	104	147	41	68
Syrian.....	58	142	4	4
Turkish.....	15	32	8	3
Welsh.....	57	68	18	7
West Indian (except Cuban).....	47	52	30	44
Other peoples.....	49	207	27	37
Not specified.....		700	694	
Total.....	17,293	24,745	5,915	4,285

OFFICIAL PUBLICATIONS RELATING TO LABOR.

UNITED STATES.

ARKANSAS.—*Bureau of Labor and Statistics. Second Biennial Report, for the years 1915 and 1916. [Little Rock, 1917.] 62 pp.*

Contains report of operation of the minimum-wage and maximum-hour law enacted in 1915, the child-labor law, and the 10-hour law applicable to saw and planing mill employees; gives statistics of fatal and nonfatal accidents, and of mining operations; and recommends new legislation on various subjects and amendments of existing laws; concludes with suggestions for accident prevention.

CALIFORNIA.—*First Report on the Public Employment Bureaus of the State of California. From the 17th biennial report of the bureau of labor statistics. 1915-1916. Sacramento, 1916. 64 pp.*

Reviews operations under an act of the legislature which became law August 8, 1915. This law, appropriating \$50,000 for the purpose, authorized the estab-

lishment and operation for two years of public employment bureaus at San Francisco, Los Angeles, Sacramento, and Oakland.

Sixteen pages are devoted to such topics as opening of offices; aims and policies; relation to charity; forms; registration; renewals; kind of positions furnished; permanency of positions; cost of positions; advertising; rules for conduct of offices, etc.

CALIFORNIA.—*Industrial Accident Commission. Logging and Sawmill Safety Orders, effective March 15, 1917. Sacramento, 1917.* 35 pp.

COLORADO.—*Biennial Report of the Bureau of Labor Statistics, 1915-16. Denver, 1916.* 270 pp.

Reports briefly the activities of the bureau in enforcing the women's eight-hour law, the child-labor law, the law covering employment in mines, mills, smelters, and underground works, and the factory-inspection law, all of which seem to have proved beneficial to labor generally. Violations of these laws have been reported to the bureau, but these have been dealt with satisfactorily. The number of permits issued to children desiring to go to work was 1,002. Between March 1, 1915, and November 30, 1916, 1,993 orders were sent out requesting that certain safety devices be installed in factories for the protection of those employed. The manufacturing industries of the State inspected at the time of the report employed 29,898 men and 3,733 women; mercantile establishments employed 11,891 men and 4,527 women. During the period March 1, 1915, to November 30, 1916, \$20,920.01 in wages due to workers was collected by the bureau without cost to the plaintiffs. There is no specific authorization to make such collections and the commissioner asks that he be given the legal right to do so. The free-employment bureaus of the State, during 1915 and down to November 30, 1916, secured steady and seasonal employment for 21,136 men and 6,654 women. In this connection it is recommended that sufficient funds be appropriated to maintain special free employment agencies during seasonal employment. The commissioner also asks for police powers in the enforcement of the fire-escape law and all safety provisions in connection with manufacturing; also in the enforcement of the eight-hour law.

FLORIDA.—*Second and Third Annual Reports of the State Labor Inspector [Jan. 1, 1915, to Dec. 31, 1916]. Jacksonville, 1917.* 76 pp.

The State labor inspector recommends that the age limit for newsboys be raised from 10 to 12 years; that the hours of labor of females be limited to 9 per day and 54 per week, and for children to 8 per day and 48 per week; that the age for employment of minors in 5-and-10-cent stores be raised from 12 to 14 for boys, and 16 for girls; that school textbooks be furnished free of cost to children; and that a more inclusive fire-escape law be enacted. During the two years, 2,185 inspections were made; 1,200 children working in violation of the child-labor law were removed from employment; safeguards were ordered on 132 dangerous machines, etc.; sanitary conditions were ordered improved in 126 places; working hours of employees under 16 years of age were reduced to 9 in 38 mills and factories; seats for females were ordered in 38 stores and factories; 7 boys were removed from operating motion-picture machines; and 1,201 violations of law were discovered, prosecutions being necessary in only a few of these cases.

ILLINOIS.—*Insurance Department. Addresses and Papers on Insurance, by Rufus M. Potts, insurance superintendent, State of Illinois. Springfield, January, 1, 1917.* 489 pp.

This volume, according to the preface, contains addresses, remarks, and papers from the files of the insurance department, which "deal both with the fundamental and present-day conditions in various branches of insurance." Of particular interest to labor, the volume includes addresses on workmen's

compensation, welfare or social insurance, and unemployment insurance. There are also legislative recommendations to the fiftieth general assembly, 1917 session, relating to all branches of insurance.

IOWA.—*Iowa Workmen's Compensation. 1916. Legal Opinions on Various Phases of the Iowa Workmen's Compensation Act. By Henry E. Sampson, assistant attorney general of Iowa, special counsel to the Iowa industrial commissioner.* 69 pp., including index.

The preface to this pamphlet states that "this small collection of opinions on the compensation statute has been selected from the many given during the current year, and are now being published in this convenient form for distribution among the judges, lawyers, compensation insurance adjusters, employers, and employees, all of whom are frequently called upon to interpret the complicated provisions of this revolutionary legislation."

— *Report of the Bureau of Labor Statistics for the biennial period ending June 30, 1916. Des Moines.* 307 pp., including index.

This is the seventeenth biennial report of the bureau, and about one-half of the volume (pp. 180-303) is devoted to the results of a special investigation relating to women as wage earners in laundries and telephone exchanges. Extensive tables are given.

Other subjects on which tables and discussion are presented are as follows: Bureau of labor statistics, administration, duties of, etc.; statistics of manufactures; factory inspection; child labor; wages of farm help; trade-unions, arbitration and conciliation; State and private employment bureaus.

MASSACHUSETTS.—*District Police. Boiler Inspection Department. Steam-Boiler Rules formulated by the Board of Boiler Rules. Boston, 1916.* 114 pp., including index.

Consists of three parts: Part I states the rules which, in addition to the rules contained in Part II, apply to boilers installed on or before May 1, 1908; Part II states the rules applying to "all boilers now or hereafter installed, unless otherwise stated"; Part III states the rules which, in addition to rules contained in Part II, apply to boilers installed after May 1, 1908.

— *Report of the joint special recess committee on workmen's compensation insurance rates and accident prevention, February, 1917. Boston.* 88 pp.

Reviewed on pages 541 to 543 of this issue of the REVIEW.

MICHIGAN.—*Report of the Tuberculosis Survey of the State Board of Health for the 12 months from October 1, 1915, to October 1, 1916, under the provisions of act 238 of the Public Acts of 1915. Lansing, Mich., 1917.* 89 pp.

Is divided into eight chapters and an appendix, as follows: Chapter I, Act authorizing the survey; Chapter II, Organization; Chapter III, A study of housing conditions; Chapter IV, The publicity campaign; Chapter V, County surveys in detail; Chapter VI, Miscellaneous information; Chapter VII, Recommendations by the board; Chapter VIII, Indorsements of the survey; Appendix, Summary of cases studied.

MILWAUKEE.—*Fifth Annual Report of the Citizens' Committee on Unemployment and the Public Employment Bureau of Milwaukee to the Common Council, City of Milwaukee; Board of Supervisors, County of Milwaukee; and the Industrial Commission of Wisconsin, year ending October 31, 1916. [Milwaukee, 1917.]* 14 pp.

States that the number of orders received, number of applicants registered and men wanted, referred to positions, and actually placed more than doubled over the preceding year, and that wages were proportionately increased: The wages per hour for common laborers during the year ranged from 27½ cents to 32½ cents. In all, 34,603 applications for work were received at the Milwaukee

employment office, and 40,674 applications for help; 34,917 were referred to positions, and 25,945 positions were secured. The following table sets forth the business of the Milwaukee public employment office for the year ending October 31, 1916, as compared with 1914 and 1915, showing also per cent of increase, 1916 over 1915:

SUMMARY OF THE BUSINESS OF THE MILWAUKEE PUBLIC EMPLOYMENT BUREAU FOR THE YEARS ENDING OCT. 31, 1914, 1915, AND 1916, SHOWING PER CENT OF INCREASE, 1916 OVER 1915.

Item.	1914	1915	1916	Per cent of in- crease, 1916 over 1915.
Applications for work:				
Men.....	26,157	27,086	26,818	11.0
Women.....	7,633	8,572	7,785	9.2
Total.....	33,790	35,658	34,603	13.0
Help wanted:				
Men.....	16,255	17,965	30,310	68.7
Women.....	6,273	6,995	10,364	48.2
Total.....	22,528	24,960	40,674	63.0
Referred to positions:				
Men.....	16,660	18,173	25,830	42.1
Women.....	7,349	7,917	9,087	14.8
Total.....	24,009	26,090	34,917	33.8
Positions secured:				
Men.....	11,349	14,336	19,316	34.7
Women.....	3,731	4,575	6,629	45.0
Total.....	15,080	18,911	25,945	37.2

¹ Decrease.

Most of the positions secured in 1916 were for casual work (13,270, or 51.1 per cent), while the next largest number of positions affected general laborers (5,674, or 21.9 per cent). The total cost of each position secured was 45 cents in 1914, 43 cents in 1915, and 33 cents in 1916.

MISSOURI.—*Bureau of Labor Statistics. Red Book, being the Thirty-second Annual Report, for the fiscal year ending November 5, 1915. Jefferson City [1916]. 322 pp. Illustrated.*

Gives "statistical details and information relating to all departments of labor, State of Missouri, and especially in relation to the commercial, industrial, social, educational, and sanitary conditions of the laboring classes and to the permanent prosperity of the productive industries of the State." Part II contains reports of the work of the free employment bureaus; gives considerable data as to unemployment, showing the estimated number of wage earners out of work, the duration and causes of unemployment; presents the scale of wages in certain selected trades in St. Louis and Kansas City, and other facts relating to organized labor; includes data as to sanitary conditions and environments in grading and construction camps; and gives statistical data as to accidents in mines. There is also a section on retail prices of important food commodities from 1907 to 1915.

—(KANSAS CITY).—*Report of Investigation of Three Hundred Industrial Accidents in Kansas City. By the Factory Inspection Department of the Board of Public Welfare, Kansas City, Mo. 23 pp.*

Relates to 300 accidents reported to the president of the board of public welfare as required by city ordinance. These accidents occurred to workmen

while engaged in their ordinary occupations; for the most part in factories, mercantile establishments, laundries, and in building operations. The railroads declined to give any statistical information concerning accidents to their workmen and compensation paid them.

Twelve tables and their discussion occupy pages 5-22. The figures show that responsibility for the injury rested on the injured employee himself in about one-third of the cases, on the employer in about one-fourth of the cases, and in about one-third of the cases on the ordinary risks of the industry.

Forty-three of the 300 accidents were fatal. In 17 of the fatal cases the heirs and dependents have suits pending; in 2 cases no action was taken, and in 1 case the amount of settlement is unknown. In the remaining 23 cases the heirs and dependents have obtained settlement by suit or compromise, the average compensation being \$988 after subtracting attorney's fees, doctor, hospital, and funeral expenses.

The social cost of industrial accidents becomes all the more apparent when it is shown that 418 persons were wholly dependent and 129 partially dependent upon the earnings of the 300 persons killed or injured in industry. Most of those wholly dependent were wives and children under 16 years of age.

MISSOURI (KANSAS CITY).—*Seventh Annual Report of the Board of Public Welfare of Kansas City. April 20, 1915—April 19, 1916.* 176 pp.

Is text matter for the most part. The table of contents is as follows: Roster of officers and employees; the status of the work of the board of public welfare (general superintendent's report); the school of social service; general report of the research bureau; report on desertion and nonsupport; report on homeless men; factory inspection department; recreation department; welfare loan agency; legal aid bureau; department of homeless and unemployed; parole department; women's reformatory; municipal farm.

NEW HAMPSHIRE.—*Eleventh Biennial Report of the Bureau of Labor. Part I, for the fiscal period ending August 31, 1915.* 96 pp. *Part II, for the fiscal period ending August 31, 1916.* 211 pp. Concord, N. H., 1915-16. [Two parts bound in one volume.]

Part I includes a directory of local unions; a directory of manufacturing and mechanical establishments; information relating to unemployment secured from secretaries of local unions throughout the State; data concerning industrial accidents as reported by employers working under the compensation provisions of chapter 163, Laws of 1911. Part II contains statistics of manufacturing establishments arranged by industries, and also by counties; number of hours worked per day, per week, and per year; number of employees and total wages paid; statistics relative to laundries and building and contracting; and statistics of mercantile establishments arranged by employments. Also classified tables of weekly wages paid in manufacturing and mercantile establishments. Complete returns were secured from 775 establishments, showing 50,517 males and 20,163 females employed; total wages paid, \$36,158,018. Space is also devoted to industrial accidents, unemployment, and a directory of the labor organizations of the State, including the State Federation of Labor, central labor unions, and the local unions of the various towns and cities.

PENNSYLVANIA.—*Department of Labor and Industry. Monthly Bulletins, No. 11, November, 1916, 38 pp., and No. 12, December, 1916, 46 pp. Harrisburg, 1916.*

The November bulletin contains articles on industrial illumination, mechanical dangers that menace the eyes, industrial safety versus high cost of living, and outline of the proposed State building code. It also reviews the work of the bureau of mediation and arbitration which, during September, adjusted 12 of the 16 strikes in force, the settlements involving 4,093 men; the work

of the bureau of employment, which placed 1,730 persons in positions during September; and the bureau of workmen's compensation. This latter bureau received reports of 1,827 fatal accidents from January 1 to October 1, 1916, and approved 757 compensation agreements involving a total of \$1,646,630.74, or an average of \$2,175.20 each. The largest death claim was \$7,500. In the anthracite coal fields during the eight months ending September 1, 1916, 333 workers were killed and 6,958 other workers disabled for periods greater than 14 days. The total compensation cost in 181 of the fatal cases is estimated at \$453,499.08, or an average of \$2,505.51 per case.

The December bulletin includes articles on the Pennsylvania workmen's compensation system, eye injuries caused by excess or deficiency of light, and inquiry into equipment for rendering first aid. A table is given showing a total of 2,334 persons killed and 227,887 persons injured up to December 1, 1916, or an average of 825 per day killed and injured. During October, 1916, 2,659 persons were asked for by employers and 1,688 persons were placed in positions by the bureau of employment.

VIRGINIA.—*Bureau of Labor and Industrial Statistics. Nineteenth Annual Report, 1916. Richmond, 1916. 147 pp.*

Gives information relating to manufactures, factory and mine inspection, mine accidents, and prosecutions by the bureau for violations of statutes for the protection of wage earners.

WASHINGTON.—*Industrial Welfare Commission. Second Biennial Report, 1915-16. Olympia, 1917. 251 pp.*

For a review of this report see page 560 of this number of the REVIEW.

—*Industrial Insurance Department. Fifth annual report, 1916. Olympia, 1916. 175 pp.*

WISCONSIN.—*Industrial Commission. Notice of hearing, hours of labor for women. [Madison, 1917.] 40 pp.*

Reviewed on pages 543 to 548 of this issue of the REVIEW.

Contains copy of petition and statement of facts filed with the industrial commission January 13, 1917, relative to the welfare of women workers in the industries of the State with particular reference to hours of labor. The petition contends that the industrial commission has the power to fix hours of labor for women; that women are entitled to greater protection of law than men, many of whom enjoy an eight-hour day; that night labor should be curtailed as far as possible and prohibited in certain employments; and that a shorter day is conducive to the health of women workers and should be provided as essential in the interests of their general welfare.

UNITED STATES.—*Congress. House. Report relating to Section 10 of the Act creating the Department of Labor. Document No. 1906 (64th Cong., 2d sess.). Washington, 1917. 11 pp.*

This is a letter from the Secretary of Labor prepared in pursuance of section 10 of the act creating the Department of Labor, which requires him to report a plan of coordination of the activities, duties, and powers of the office of the Secretary of Labor with those of other governmental agencies, so far as they relate to labor and its conditions, with a view to further legislation to further define the duties and powers of the Department of Labor. The letter notes the overlapping of the work of the various bureaus of the Department of Labor and other Government activities, notably the Public Health Service, the Bureau of Mines, the Office of Markets and Rural Organization, the Steamboat-Inspection Service, the Bureau of Navigation, the Interstate Commerce Commission, and the Board of Mediation and Conciliation. Includes a

draft of a proposed law to give the Secretary of Labor authority to call upon other departments for supplemental data pertaining to labor gathered by them, and also authorizing other departments to call upon the Secretary of Labor for similar data gathered by his department, and making such information available to any departments, if requested, before its use by the department collecting it.

UNITED STATES.—Department of Agriculture. Office of Public Roads and Rural Engineering. Bulletin 414. Convict labor for road work. Washington, 1916. 218 pp.

A digest of this report appears on pages 591 to 595 of this issue of the REVIEW.

— **Department of Commerce. Annual reports for 1916. Report of the Secretary of Commerce and reports of bureaus. Washington, 1916. 1064 pp.**

— **Circular of the Bureau of Standards, No. 54. National Electrical Safety Code for examination, trial, and constructive criticism. 2d edition, issued November 15, 1916. Washington, 1916. 323 pp.**

This code consists of four principal parts: (1) Rules for the installation of machinery, switchboards, and wiring in central stations and substations; (2) rules for the construction of overhead and underground lines for the transmission and distribution of electrical energy; (3) rules for the installation of electrical apparatus and wiring in factories, residences, and wherever electricity is utilized for light, heat, or power; (4) rules for safeguarding employees when working on or near electrical machines or lines. The bureau recommends that this code be adopted at present only for use on trial, and criticisms of the rules and suggestions for their improvement either by way of change or addition are invited.

— **Department of the Interior. Geological Survey. Coal in 1915: Part A: Production, 87 pp. Part B: Distribution and consumption. Washington, 1916. 81 pp.**

A digest of this report appears on pages 588 to 590 of this issue of the REVIEW.

— **Interstate Commerce Commission. Division of Statistics. A Preliminary Abstract of Statistics of Common Carriers, for the year ending June 30, 1916. Washington, 237 pp.**

This abstract for the year ending June 30, 1916, covers "all steam railways that reported annual operating revenues above \$1,000,000, showing for each company mileage, general balance sheet figures, income account, profit and loss account, operating revenues and expenses in detail, statistics of rail-line operations, particulars of equipment in service, revenue freight carried, recapitulation of hire of freight cars, and an analysis of general operating expense accounts with respect to class of service as required in the Commission's Rules Governing the Separation of Operating Expenses between Freight Service and Passenger Service, effective on July 1, 1915," also statistical abstracts from the annual reports of the principal express companies and the Pullman Co.

— **Report of the United States Bureau of Efficiency for the period from March 25, 1913, to October 31, 1916. Washington, 1917. 27 pp.**

Reports a total saving in Government expense from March 25, 1913, to June 30, 1918, as a result of the Bureau's work, of \$1,381,680, the largest single amount, \$576,800 or 41.6 per cent, representing an increase in clerical labor and printing that has been avoided. In October, 1914, the Bureau of Efficiency took up the question of establishing a system of efficiency ratings for the entire Post Office Department, and its recommendations were formally promulgated by executive order signed June 23, 1915. As a result of the operation of this

system the average salary of the employees of the Post Office Department has been increased from \$1,190, in 1914, to \$1,229, in 1917, a net gain of \$39 per employee. Despite this increase in average pay of departmental employees the total expense of operating the department has been reduced in the same period by \$166,000.

FOREIGN COUNTRIES.

FINLAND.—*Industristatistik 30 År 1913. Bidrag till Finlands Officiella Statistik. Helsingfors, 1915.* 58, 222 pp.

Since 1884 the statistical bureau of Finland has issued an annual report on industrial conditions. In 1909, however, certain changes were made which render the issues before that year not entirely comparable with those subsequently issued.

The report shows that there has been a continuous growth in industrial establishments, motor force, number of workers, and value of output year by year since 1909.

The four most important branches of industry based on number of employees, establishments, and value of output are: Woodworking and lumbering; preparation of foods and drinks; paper; and textiles.

The total number of persons employed in 1913 in the 4,709 manufacturing establishments was 109,238; of these 740 establishments, employing 34,123 persons, were engaged in woodworking and allied industries.

GREAT BRITAIN.—*Departmental Committee on Juvenile Education in Relation to Employment After the War. Interim report. London, August 24, 1916.* 4 pp.

This interim report is made for the purpose of recommending that the board of education take steps at the earliest opportunity, in cooperation with the Board of Trade, to strengthen and extend the system of juvenile employment bureaus and local committees in connection therewith. The committee had in mind that during the war large numbers of children have been placed in employments which can not be permanent, that others have been placed in unsuitable employments, and that some dislocation, and probably a very extensive dislocation, of industry will take place, affecting the conditions of juvenile employment. In normal times more than 500,000 children enter into employment for the first time each year.

— *Health of Munition Workers Committee. Memorandum No. 15. The effect of industrial conditions upon eyesight. London, 1916.* 8 pp. Price 1d.

Reviewed on pages 538 to 540 of this issue of the REVIEW.

— *Home Department. Coal Mining Organization Committee. Third general report. London, 1916.* 17 pp. Price 2½d.

Reviewed on pages 534 and 535 of this issue of the REVIEW.

— *The Local Government Board. Man-Power Distribution Board. London, October 6, 1916.* 4 pp.

Contains memorandum of decisions to assist tribunals in deciding questions of exemption from military duty. Suggests that no certificates of exemption should be given to men already decertified by a Government department, whose cases are pending before the tribunals, to whom tribunals have refused exemption, to whom tribunals have given temporary exemptions, or who are already under notice to join the army. The tribunals are also requested to avoid extending the existing temporary exemptions, numbering nearly 400,000 and to expedite the settlement of outstanding applications and the hearing of appeals, of which 200,000 are pending. The memorandum states that "it is essential that a large part of the labor now engaged on private work should be diverted to Government orders or released for the army."

ICELAND.—*Hagskýrslur Íslands 10. Fiskiskýrslur og Hlunninda Árið 1914. Gefid út af Hagstofu Íslands. Reykjavík, 1916.* 18*, 46 pp.

A report on the fishing and hunting industry in Iceland, including number of boats of various classes and tonnage and quantities and values of various kinds of fish and game caught in 1914.

— *Hagskýrslur Íslands 11. Búnaðarskýrslur Árið 1915. Gefid út af Hagstofu Íslands. Reykjavík, 1916.* 13*, 26 pp.

A statistical report on agriculture in Iceland in 1915. Tables are given showing the extent of farming operation conducted, number of farm owners, cattle, etc., and quantity of farm products.

ITALY.—*Ministero di Agricoltura, Industria e Commercio. Direzione Generale della Statistica e del Lavoro. Ufficio del Censimento. Censimento della Popolazione del regno d'Italia al 10 giugno 1911. Volume IV. Rome, 1915.* vi, 553 pp.

Census of Italy, classified by sex, occupation, and industrial status of persons over 10 years of age.

JAPAN.—*Forty-first Annual Report of the Minister of State for Education. 1913-1914. Abridged. Translated and published by the Department of Education. Tokyo, Japan, July, 1916.* 349 pp. and 4 charts.

This report contains a record of educational affairs as transacted by the department of education during the statistical year ending March 31, 1914. It is divided into three parts: Part I contains a general sketch of affairs transacted by the department; Part II gives a summary of education throughout the country; Part III treats briefly of affairs relating to religion.

NETHERLANDS.—*Departement van Landbouw, Nijverheid en Handel. Centraal Verslag der Arbeidsinspectie, over 1915. Arnheim, 1916.* lxiii, 464, xvi pp.

This volume contains a report of the activities of the labor inspection force of the State Labor Bureau for the year 1915, and a special discussion of industrial conditions due to mobilization and its effect on female employment.

— *Verslag omtrent den Staat der Rijksverzekeringsbank, 1915, The Hague, 1916.* 243, vii pp.

A report of the operation of the State insurance bank, organized for the administration of the Dutch compensation act of 1901. (See Monthly Review, August, 1915, p. 60.)

There were 8,832 insured establishments, covering 99,264 policies; 78,523 accidents were reported, causing 576,515 days of disability for the 75,254 injuries compensated.

The following table shows the recognized insurance agencies, with distribution of compensation as paid by each.

AMOUNT PAID IN BENEFITS (MEDICAL COSTS, BURIAL EXPENSES, ACCIDENT COMPENSATION, TO DEPENDENTS, ETC.), CLASSIFIED BY INSURANCE CARRIERS, UNDER THE DUTCH COMPENSATION LAW, 1905, 1910-1915.

Year.	State Insurance Bank.	Employers carrying own risk.	Stock companies.	Total.
1905.....	\$266,430	\$37,543	\$534,558	\$838,531
1910.....	604,290	46,825	661,634	1,312,749
1911.....	648,025	56,569	738,967	1,443,561
1912.....	709,039	66,074	840,805	1,615,918
1913.....	757,056	75,677	971,141	1,803,874
1914.....	752,866	83,903	1,008,301	1,845,070
1915.....	736,059	90,107	1,058,174	1,884,340

NETHERLANDS.—*Maandschrift van het Centraal Bureau voor de Statistiek*. Vol. 11, No. 12 (December, 1916). The Hague.

Labor conditions in the Netherlands in various industries, November and December, 1916: Employment of interned soldiers to supply the lack of labor in Netherlands industries; unemployment; strikes and lockouts; employers' and employees' federations; collective agreements, etc.

QUEENSLAND.—*Registrar General's Office. Vital Statistics, 1915. Fifty-sixth Annual Report of the Government Statistician*. Brisbane, 1916. 54 pp.

REPUBLIC OF COSTA RICA.—*Ministerio de Fomento. Dirección General de Estadística. Año 1915. Volume 19*. San Jose, 1917. xl, 460 pp.

This volume constitutes the statistical yearbook of the republic for the year 1915, containing a compilation of the most important statistical data collected during the year relating to population, vital statistics, commerce, etc. It contains also a list of books, pamphlets, and periodicals issued by the national printing office and a commercial and industrial census.

SPAIN.—*Consejo Superior de Emigración. Boletins. Nos. 84 and 85. July to December, 1916. Madrid*. 401 to 624 pp.

Laws and regulations concerning emigration and immigration in Spain and in Nicaragua; emigration statistics; laws relating to industrial accidents in Cuba and in Argentina; and various other chapters on immigration.

— *Instituto de Reformas Sociales. Boletin (monthly). Núm. CLI. Enero de 1917. Madrid, 1917*. 104 pp.

This number of the review of the Bureau of Social Reforms of Spain contains a report of the activities of the secretary's office, an article on child labor in industry; résumé of legislation; text of laws and decrees fixing maximum prices of coal, grain, etc.; Government control over mine organization; sanitation of establishments and protection of laborers engaged in the manufacture of matches.

SWEDEN.—*Riksörsäkringsanstalten År 1915. Sveriges Officiella Statistik. Stockholm, 1916*. IV, 288 pp.

A report of the operations of the national insurance office for the year 1915, and a summary of its experience, 1908 to 1913.

During the year there were 8,757 insurance contracts issued, covering 146,452 working people. Annuities were purchased for 69 incapacitated persons, for 13 widows and 20 children of laborers who died as result of accidents. Compensation has been granted under the sickness-benefit clause in 10,903 cases for injuries lasting not more than 60 days. Annuities have been granted in 455 cases of invalidity of duration exceeding 60 days, and in 60 cases where death resulted annuities have been granted to 35 widows and 81 children. The total number of annuities in force at the end of the year 1915 was 3,264.

The following table shows the receipts and expenditures for the year 1915:

Item.	Receipts.	Item.	Expenditures.
Premiums.....	\$244,389.74	Sickness benefits.....	\$87,863.53
Purchase of annuities.....	32,323.21	Burial expenses.....	948.72
Interest, etc.....	85,274.92	Annuities.....	105,255.12
Total.....	361,987.87	Total.....	194,067.37

The financial condition of the fund on Dec. 31, 1915, was as follows:

Premiums paid in advance.....	\$64,320.00
Reserved for payment of injuries under investigation.....	144,720.00
Reserve for contingent annuities.....	1,614,148.46
Guaranty funds.....	84,630.38
Total	1,907,818.84

During the 5-year period, 1908-1912, compensation amounting to 126,799 crowns (\$33,982.13) was paid in 2,127 cases of injuries producing invalidity for more than 60 days. The average compensation paid for each case equaled 59.61 crowns (\$15.98). In 1,346 cases of permanent incapacity, partial or total, the total capitalized value of compensation amounted to 1,425,671 crowns (\$382,079.83), or 1,059 crowns (\$283.81) per person. Compensation has been paid in 23,438 cases for injuries entailing less than 61 days' incapacity, amounting to 449,026 crowns (\$120,338.97), or an average for each case of 19.16 crowns (\$5.13).

Detail tables by industry and character of disability for the 5-year period and similar tables for the year 1913 have been prepared showing the experience of the fund.

At the close of the year 1915 there were 2,036 persons covered by the fishermen's insurance fund, the assets of which amounted to 75,302 crowns (\$20,180.94).

There were 119 accidents compensated from this fund, of which 111 received sickness benefits, 4 sickness and invalidity benefits, and 4 cases of compensation for death.

SWEDEN.—Socialstyrelsen. Sveriges Officiella Statistik, Arbetsartillygäng, Arbetstid och Arbetslön inom Sveriges Jordbruk År 1915. Stockholm, 1916. 39 pp.

A report on agricultural labor in 1915, showing the proportion of the population in rural communes employed as farm laborers, and their wages, hours of labor, etc. Complete or satisfactory data were secured from 1,679 communes, 513 were incomplete, and 14 failed to furnish any information. The average hours worked on farms, properly speaking, was 12.5, from which the average rest period of 2.2 hours should be deducted. The average wage is based on strictly farm labor and does not include wages of specialists or skilled laborers. Male laborers working under a yearly contract are paid on an average 343 crowns (\$91.92) and board estimated at 412 crowns (\$110.42), a total of 755 crowns (\$202.34); female help receives 212 crowns (\$56.82) and board valued at 335 crowns (\$89.78), a total of 547 crowns (\$146.60). Persons working under a cash payment plus goods in kind (*salaire mixte*), including dwelling and fuel, receive 833 crowns (\$223.24), and 939 crowns (\$251.65) is paid those who attend live stock. Day laborers under a contract to work six months or more on one farm are paid 2.72 crowns (73 cents) in summer and 2.07 crowns (55 cents) in winter. Casual laborers are paid 3.13 crowns (84 cents) in summer and 2.34 crowns (63 cents) in winter.

Marked increase in the wages of day laborers is shown, and if the value of goods in kind is computed at the present selling prices the most marked increases are found in the earnings of those paid partly in money and partly in supplies.

— — — *Arbetstidens Längd Vid Frisersalonger och Badinrättningar. Stockholm, 1916. 130 pp.*

At the close of the year 1913, there were 994 barbershops, and 502 hair-dressers' shops, and 588 bathing establishments in operation in Sweden. An investigation was made relative to hours of labor per day and hours worked per week, hours during which the shops were open, and number of employees and of apprentices employed.

— — — *Olycksfall i Arbete År 1913. Stockholm, 1916. 69 pp.*

Serious accidents occurring in industry, land transportation, and commerce are required by law of 1912 to be reported to the local police. This is the second report under this act and shows an increase in the number reported from 18,857 in 1912 to 21,048 in 1913. The highest accident rates are found in mining (38.1), forestry (14.3), and transportation (13.2). Machines are

responsible for 20 per cent, hand loading, carrying, etc., in transportation for 19.5 per cent, and tools for 14.6 per cent of all accidents reported for 1913. Most of the injuries produced were followed by recoveries, and only 1.4 per cent of all male and 0.8 per cent of female persons injured died as a result of injuries. Of the 20,525 cases reported in 1913, 14,405 were insured, of which 5,775 were insured in the State insurance fund, 2,845 in regular insurance societies, and 5,785 in special funds established by the employers.

SWEDEN.—*Socialstyrelsen. Skogsarbetarnas Lernads- och Arbetsförhällanden i Värmland, Dalarna och Norrland. Stockholm, 1916.* 244*, 399 pp.

A report made by the labor office of the Department of Commerce, of an investigation of conditions of forest workers in 1913. The report covers all portions of Sweden in which forestry forms an important industry, and includes subsidiary occupations, as rafting, charcoal burning, etc. The data available for the report refer to 173 forest exploitations furnishing employment to 8,360 laborers, and 10 charcoal-burning establishments employing 151 laborers, which were assumed to be typical of all regions and all classes of work.

The questions investigated were working conditions, housing, and victualing.

VICTORIA (AUSTRALIA).—*Report of the Government statistician for the year 1915. Thirty-eighth Annual Report on Friendly Societies. Melbourne (1916).* xxvii, 63 pp.

The report shows that for the last 30 years there has been a steady increase in the number of societies, branches, membership and funds, and in funds per member. The number of members has increased 46 per cent and the funds 78 per cent per member. The number of males 16 years of age and over in the Province in 1915 is reported as being 481,000, of which 145,210, or approximately one-third of the male population, were members of these societies. There were 11 female societies, of which 10 were associated with male societies.

About 15,000 members have enlisted, and it is impossible to estimate the amounts which will be payable because of this service, but some of the societies have taken precaution against possible abnormal payments by reason of the war through reinsurance schemes.

There are four juvenile societies, having 33 branches, with a membership of 376 and funds amounting to £2,101 (\$10,225).

The number of sick persons per 1,000 members was 205.7; the average duration of sickness was 8 weeks and 2 days per sick member and 10.3 days per effective member; sickness benefits paid averaged £5 15s. 3d. (\$28.04) per sick person, £1 5s. 6d. (\$6.20) per effective member, and 14s. 1d. (\$3.43) per week. The death rate of members was 10.07 and that of members' wives was 4.3 per 1,000 members.

UNOFFICIAL PUBLICATIONS RELATING TO LABOR.

AMERICAN FEDERATION OF LABOR. *Legislative achievements of the American Federation of Labor. Washington, 1916.* 16 pp.

BUREAU OF RAILWAY ECONOMICS (WASHINGTON, D. C.) LIBRARY. *List of references to books and articles on the Adamson law of September, 1916.* 19 typewritten pages. 1917.

CASUALTY ACTUARIAL AND STATISTICAL SOCIETY OF AMERICA. *Proceedings. October 27-28, 1916. Volume 3, part 1, No. 7. 230 Fifth Avenue, New York.* 127 pp. Price, \$1.

Among the subjects of papers presented in this volume are: Scheduled experience rating; Some principles of compensation merit rating; Application of Bayes's rule in the classification of hazards in experience rating; Temporary

and permanent disability reserves. An abstract is also given of the discussion of papers read at the previous meeting of the society relating to the following subjects: Should the compensation premium reflect the experience of the individual risk? The experience rating of workmen's compensation risks; Valuation of pension funds; Preliminary list of the coal-mine rating schedule of the associated companies; Outline of a method for determining basic pure premiums; Relation of accident frequency to business activity; Office practice in the valuation of compensation losses.

CROWELL, JOHN FRANKLIN. *Social insurance with special reference to compulsory health insurance.* New York Chamber of Commerce. 1917. 92 pp.

For reference to this publication see p. 513 of this issue of the REVIEW.

DEBATERS' HANDBOOK SERIES. *Selected articles on minimum wage.* Mary Katharine Reely, compiler. H. W. Wilson Co., White Plains, N. Y., and New York City. 1917. 202 pp.

The articles have been grouped roughly as follows: Those bearing on conditions that call for a regulation of wages; discussions on economic theory of minimum wages; reports on minimum wage in operation. The discussion is not limited to the minimum wage for women. A comprehensive bibliography giving both affirmative and negative references is included in the volume.

— *Selected articles on trade-unions.* Edna Dean Bullock, Compiler. 2d and enlarged edition, 1916. H. W. Wilson Co., White Plains, N. Y., and New York City. 280 pp.

This book undertakes to give comprehensive references for use on both sides of the question, "Resolved, That trade-unions as they now exist are, on the whole, beneficial to society in the United States." It also contains a bibliography designed to be comprehensive enough for advanced students of the subject as well as for the general public and the debater. The first edition was published in 1913.

DEUTSCHE GESELLSCHAFT VON CHICAGO. *26. Jahres bericht.* 1916. 16 pp.

Sixty-second Annual Report of the German Aid Society of Chicago. In addition to relief in cash and otherwise, amounting to \$11,237.09, this society through its employment department supplied work to 5,765 persons during 1916.

FISHER, BOYD. *How to reduce labor turnover.* An address by the Vice-President of the Executives' Club of Detroit, Mich., before the Philadelphia Association for the Discussion of Employment Problems, Philadelphia, Pa., January 8, 1917; the Employment Managers' Association, Boston, Mass., January 9, 1917, and the Employment Managers' Council of the Chamber of Commerce, Rochester, N. Y., January 11, 1917. 23 pp. Price, 25c.

For statement concerning this address, see article on "Employment problems in industry," p. 579, of this issue of the MONTHLY REVIEW.

FRANKEL, LEE K. *Maternity insurance.* Reprinted from the New York Medical Journal for December 18, 1915. Metropolitan Life Insurance Co. 1916. 24 pp.

Paper read at the meeting of the National Association for the Study and Prevention of Infant Mortality, Philadelphia, Nov. 10, 1915. Discusses (1) history of motherhood protection through voluntary philanthropic agencies and through maternity insurance, (2) legislation affecting motherhood (both in the United States and in foreign countries), (3) philosophy of maternity insurance, (4) present methods of protecting motherhood, particularly along lines of social insurance in European countries, (5) cost of maternity insurance, (6) developments in the protection of mothers in the United States, and possibility of organizing a scheme of social insurance under which cash benefits and medical attendance will be given to women during the period of maternity.

HANDBOOK SERIES. *Prison reform. Corinne Bacon, compiler. The H. W. Wilson Co., White Plains, N. Y., and New York City. 1917. 309 pp.*

A collection of selected articles on prison reform, with a comprehensive bibliography. The section on convict labor covers 84 pages and relates to the contract system, the attitude of trade unions to prison labor, convict camps, good roads and convict labor, prisoners' wages, outdoor treatment of crime, the economic status of penal servitude, etc.

ILLINOIS STEEL CO. *Specifications and devices for safety of workmen on and about machinery to be constructed and installed, and operating conditions to be maintained at its plants. 1916. 135 pp.*

INTERNATIONAL ASSOCIATION FOR LABOR LEGISLATION. *American section. Social insurance committee. Health insurance. Standards and tentative draft of an act submitted for criticism and discussion by the Committee on Social Insurance of the American Association for Labor Legislation. 3d. edition. New York, May, 1916. 32 pp.*

— — — *Medical provisions of the tentative draft of an act for health insurance developed in conference with physicians and submitted for criticism and discussion by the Committee on Social Insurance of the American Association for Labor Legislation. New York, December, 1916. 14 pp.*

KEMBLE, WILLIAM FRETZ. *Choosing employees by mental and physical tests. The Engineering Magazine Co. New York, 1917. 333 pp.*

Among the specific topics discussed are practical possibilities of increasing profits through choosing employees by test system, testing the executive and administrative staff, employment forms, personality, strength of memory, age and sex, environment, education, and reading, mental and physical traits, accuracy, mental speed, skill and concentration, artistic sense, economy and reliability. Full descriptions are given of test methods.

LAUGHLIN, J. L. *Latter-day problems. Revised and enlarged edition, Scribner's, New York, 1917. 361 pp. Price, \$1.50.*

The scope of this book is indicated by the following list of subjects treated: The hope for labor unions; socialism, a philosophy of failure; the abolition of poverty; social settlements; political economy and Christianity; large fortunes; the valuation of railways; women and wealth; monopoly of labor; capitalism and social discontent; business and democracy; economic liberty.

MACARA, CHARLES W. *Capital and labor. Means for promoting industrial peace. Manchester, 1915. 4 pp.*

Paper read before the British Association for the Advancement of Science, September 8, 1915.

MAYO, KATHERINE. *Justice to All. The story of the Pennsylvania State Police. Putnam, New York, 1917. 364 pp. Price, \$2.50.*

History of the work of the Pennsylvania Department of State Police since its organization in 1905. Contains a complete list of arrests and convictions for specified crimes and an account of the methods used by the State police in handling criminals and dealing with riots and industrial disturbances.

METROPOLITAN LIFE INSURANCE CO., NEW YORK. *An epoch in life insurance. Twenty-five years of administration. New York, 1917. 110 pp.*

NATIONAL CIVIC FEDERATION. *Social insurance department compulsory health insurance. New York, 1917. 22 pp.*

For reference to this pamphlet see p. 514 of this issue of the MONTHLY REVIEW.

NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS. *Publication No. 11, 2d annual report, 1915-16. New York, November, 1916.* 36 pp.

Particular attention is given to the subject of the medical inspection of children, and a statement is given of causes of blindness among pupils enrolled in schools for the blind with the proportion blind from ophthalmia neonatorum (babies' sore eyes) in 31 State schools for the blind in 1915-16. Some data are also given of blindness caused by wood alcohol.

NATIONAL COUNCIL AND UNION OF WOMEN WORKERS OF GREAT BRITAIN AND IRELAND. *Handbook and report, 1915, 1916. London.* 191 pp.

NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION. *Bulletin No. 19. The selection and training of teachers for State-aided industrial schools. (Revised edition.) New York, February, 1917.* 64 pp.

Deals with qualifications, methods of selection, and training of teachers for schools preparing for skilled trades. Covers not only schools for men and boys, but also industrial or trade schools for girls and women. Does not cover vocational schools of household arts. The conclusions reached are that trade teachers should be masters of their craft, technical teachers should have trade experience and adequate technical knowledge, and nonvocational teachers should have special training in the subjects they are to teach. No scheme of certification can be of permanent value that is not based on accurate knowledge of the requirements for teachers. The State should be the sole certificating authority, and examinations should be conducted by State agents.

—*Bulletin No. 23. Evening vocational courses for girls and women, New York. February, 1917.* 73 pp.

The aim of this report is to define the purpose and outline plans of instruction and administration of vocational schools for girls and women. It does not attempt to cover the whole field of vocational education, but is limited to a discussion of industrial and home-making courses, placing emphasis on courses related to the daily life and occupations of the pupils.

OREGON MINIMUM-WAGE CASES. *Frank C. Steetler, plaintiff in error, v. Edwin V. O'Hara et al., constituting Industrial Welfare Commission; Elmira Simpson, plaintiff in error, v. Edwin V. O'Hara et al., constituting Industrial Welfare Commission. The Supreme Court of the United States. October term, 1916. Nos. 25 and 26. Brief for defendants in error upon reargument. Felix Frankfurter, counsel for the Industrial Welfare Commission, assisted by Josephine Goldmark, publication secretary, National Consumers' League. Reprinted by National Consumers' League, 289 Fourth Ave., New York City, 1917.* 783 pp.

This brief will be reviewed at length in the May, 1917, issue of the MONTHLY REVIEW.

OREGON TEN-HOUR LAW. *Frank O. Bunting, plaintiff in error, v. State of Oregon, defendant in error. Supreme Court of the United States. October term, 1916. No. 38. Supplementary brief for defendant in error upon reargument. Felix Frankfurter, counsel for the State of Oregon, assisted by Josephine Goldmark, publication secretary for the National Consumers' League. Reprinted by National Consumers' League, 289 Fourth Ave., New York City, 1917.* 77 pp.

The original brief for defendant in error to which this brief is supplementary was reviewed in the MONTHLY REVIEW for June, 1916, pp. 23-29. This supplementary brief will be reviewed at length in the May, 1917, issue of the MONTHLY REVIEW.

RICHARDSON, ALEX. *The man-power of the nation. Suggestions as to industrial efficiency for employers and workers. Reprinted from "Engineering."* London, 1916. 111 pp.

RYAN, JOHN A. *Distributive justice. The right and wrong of our present distribution of wealth.* Macmillan, New York, 1916. 442 pp.

This volume "represents an attempt to discuss systematically and comprehensively the justice of the processes by which the product of industry is distributed." The moral aspects of distribution are studied with reference to four groups—land owners, capitalists, business men, and laborers. In the discussion of the last group chapters are given on some unacceptable theories of wage justice, the minimum of justice, a living wage, the problems of complete wage justice, and methods of increasing wages.

SHERMAN, P. TECUMSEH. *Criticism of a tentative draft of an act for health insurance submitted for criticism and discussion by the Committee on Social Insurance of the American Association for Labor Legislation.* 15 William Street, New York. February, 1917. 94 pp.

See p. 514 of this issue of the MONTHLY REVIEW for summary of this pamphlet.

UNIONE COOPERATIVA, MILAN. *Storia dell' Union Cooperativa.* Milan, 1916. 160 pp.

Describes the development of the Unione Cooperativa of Milan, the largest Italian cooperative store society. The society was founded in 1886 with the object of selling articles of clothing to its members. To-day it operates a model central department store, several branch stores, popular-priced hotels and restaurants, wine cellars, a bakery, printing establishment, and a building and loan society which has built model homes for its members in Milanino, a suburb of Milan.

In 1915-16 the membership of the society was 15,087, paid-in capital 6,294,706 lire (\$1,214,878), sales 14,896,398 lire (\$2,875,005), and profits 621,579 lire (\$119,965).

UNITED STATES STEEL CORPORATION. BUREAU OF SAFETY, SANITATION, AND WELFARE. *The Story of Steel. Bulletin No. 6, December, 1916.* 71 Broadway, New York City. 1917. 63 pp.

This is a concise and graphic story in text and pictures of the mining, shipping, and smelting of ore and coal, and the manufacture of finished steel products. It is illustrated by photographs collected from motion-picture films shown at the Panama-Pacific Exposition in 1915. It contains a graphic chart showing the percentage of decrease in accident rates for the employees of this corporation from 1907 to 1915 as compared with 1906.

WOMEN'S EDUCATIONAL AND INDUSTRIAL UNION, BOSTON, MASS. *38th Annual Report. 1915-16.* 1917. 58 pp.

This is an organization "to promote the educational, industrial, and social advancement of women." During the year ending September 30, 1916, the union gave direct employment to 765 persons and secured employment through an appointment bureau and a social service agent for 880 persons; in addition it afforded educational opportunities to about 250 students in salesmanship and other vocational training, gave legal, social, and vocational advice to over 4,000, and rendered other social service.

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

The publication of the annual and special reports and of the bimonthly bulletin has been discontinued, and since July, 1912, a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A list of the series, together with the individual bulletins falling under each, is given below. A list of the reports and bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application.

Wholesale Prices.

- No. 1. Wholesale prices, 1890 to 1912. (Bul. 114.)
- No. 2. Wholesale prices, 1890 to 1913. (Bul. 149.)
- No. 3. Index numbers of wholesale prices in the United States and foreign countries. (Bul. 173.)
- No. 4. Wholesale prices, 1890 to 1914. (Bul. 181.)
- No. 5. Wholesale prices, 1890 to 1915. (Bul. 200.)

Retail Prices and Cost of Living.

- No. 1. Retail prices, 1890 to 1911: Part I. (Bul. 105: Part I.)
Retail prices, 1890 to 1911: Part II—General tables. (Bul. 105: Part II.)
- No. 2. Retail prices, 1890 to June, 1912: Part I. (Bul. 106: Part I.)
Retail prices, 1890 to June, 1912: Part II—General tables. (Bul. 106: Part II.)
- No. 3. Retail prices, 1890 to August, 1912. (Bul. 108.)
- No. 4. Retail prices, 1890 to October, 1912. (Bul. 110.)
- No. 5. Retail prices, 1890 to December, 1912. (Bul. 113.)
- No. 6. Retail prices, 1890 to February, 1913. (Bul. 115.)
- No. 7. Sugar prices, from refiner to consumer. (Bul. 121.)
- No. 8. Retail prices, 1890 to April, 1913. (Bul. 125.)
- No. 9. Wheat and flour prices, from farmer to consumer. (Bul. 130.)
- No. 10. Retail prices, 1890 to June, 1913. (Bul. 132.)
- No. 11. Retail prices, 1890 to August, 1913. (Bul. 136.)
- No. 12. Retail prices, 1890 to October, 1913. (Bul. 138.)
- No. 13. Retail prices, 1890 to December, 1913. (Bul. 140.)
- No. 14. Retail prices, 1907 to December, 1914. (Bul. 156.)
- No. 15. Butter prices, from producer to consumer. (Bul. 164.)
- No. 16. Retail prices, 1907 to June, 1915. (Bul. 184.)
- No. 17. Retail prices, 1907 to December, 1915. (Bul. 197.)

Wages and Hours of Labor.

- No. 1. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912. (Bul. 128.)
- No. 2. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912. (Bul. 129.)
- No. 3. Union scale of wages and hours of labor, 1907 to 1912. (Bul. 131.)
- No. 4. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912. (Bul. 134.)
- No. 5. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912. (Bul. 135.)
- No. 6. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912. (Bul. 137.)
- No. 7. Union scale of wages and hours of labor, May 15, 1913. (Bul. 143.)
- No. 8. Wages and regularity of employment in the dress and waist industry of New York City. (Bul. 146.)
- No. 9. Wages and regularity of employment in the cloak, suit, and skirt industry. (Bul. 147.)
- No. 10. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913. (Bul. 150.)
- No. 11. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912. (Bul. 151.)
- No. 12. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913. (Bul. 153.)
- No. 13. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913. (Bul. 154.)
- No. 14. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913. (Bul. 161.)
- No. 15. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913. (Bul. 163.)
- No. 16. Wages and hours of labor in the iron and steel industry, 1907 to 1913. (Bul. 168.)
- No. 17. Union scale of wages and hours of labor, May 1, 1914. (Bul. 171.)
- No. 18. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914. (Bul. 177.)
- No. 19. Wages and hours of labor in the boot and shoe industry, 1907 to 1914. (Bul. 178.)
- No. 20. Wages and hours of labor in the men's clothing industry, 1911 to 1914. (Bul. 187.)
- No. 21. Wages and hours of labor in the cotton, wool, wool, and silk industries, 1907 to 1914. (Bul. 190.)
- No. 22. Union scale of wages and hours of labor, May 1, 1915. (Bul. 194.)
- No. 23. Street railway employment in the United States. (Bul. 204.) [In press.]
- No. 24. Union scale of wages and hours of labor. (Bul. 214.) [In press.]

Employment and Unemployment.

- No. 1. Proceedings of the American Association of Public Employment Offices. (Bul. 192.)
- No. 2. Unemployment in the United States. (Bul. 195.)
- No. 3. Proceedings of Employment Managers' Conference. (Bul. 196.)
- No. 4. Proceedings of the Conference of Employment Managers' Association of Boston. (Bul. 202.)
- No. 5. The British system of labor exchanges. (Bul. 206.)

For material relating to these subjects, but not included in this series, see *Miscellaneous series*, Nos. 1, 10, 12 (Buls. 109, 172, 183).

Women in Industry.

- No. 1. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. (Bul. 116.)
- No. 2. Working hours of women in the pea canneries of Wisconsin. (Bul. 119.)
- No. 3. Employment of women in power laundries in Milwaukee. (Bul. 122.)
- No. 4. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. (Bul. 160.)
- No. 5. Summary of the report on condition of woman and child wage earners in the United States. (Bul. 175.)
- No. 6. Effect of minimum-wage determinations in Oregon. (Bul. 176.)
- No. 7. The boot and shoe industry in Massachusetts as a vocation for women. (Bul. 180.)
- No. 8. Unemployment among women in department and other retail stores of Boston, Mass. (Bul. 182.)
- No. 9. Dressmaking as a trade for women. (Bul. 193.)
- No. 10. Industrial experience of trade-school girls in Massachusetts. (Bul. 215.) [In press.]

For material relating to this subject, but not included in this series, see *Miscellaneous series*, Nos. 2, 8 (Buls. 117, 118, 167).

Workmen's Insurance and Compensation (including laws relating thereto).

- No. 1. Care of tuberculous wage earners in Germany. (Bul. 101.)
- No. 2. British National Insurance Act, 1911. (Bul. 102.)
- No. 3. Sickness and accident insurance law of Switzerland. (Bul. 103.)
- No. 4. Law relating to insurance of salaried employees in Germany. (Bul. 107.)
- No. 5. Workmen's compensation laws of the United States and foreign countries. (Bul. 126.)
- No. 6. Compensation for accidents to employees of the United States. (Bul. 155.)
- No. 7. Compensation legislation of 1914 and 1915. (Bul. 185.)
- No. 8. Compensation laws of the United States and foreign countries. (Bul. 203.)
- No. 9. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions. (Bul. 210.) [In press.]
- No. 10. Proceedings of the Conference on Social Insurance called by the International Association of Industrial Accident Boards and Commissions, December 5 to 9, 1916. Washington, D. C. (Bul. 212.) [In press.]

Industrial Accidents and Hygiene.

- No. 1. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories (Bul. 104.)
- No. 2. Hygiene of the painters' trade. (Bul. 120.)
- No. 3. Dangers to workers from dusts and fumes, and methods of protection. (Bul. 127.)
- No. 4. Lead poisoning in the smelting and refining of lead. (Bul. 141.)
- No. 5. Industrial accident statistics. (Bul. 157.)
- No. 6. Lead poisoning in the manufacture of storage batteries. (Bul. 165.)
- No. 7. Industrial poisons used in the rubber industry. (Bul. 179.)
- No. 8. Report of British departmental committee on danger in the use of lead in the painting of buildings. (Bul. 188.)
- No. 9. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. (Bul. 201.) [Limited edition.]
- No. 10. Anthrax as an occupational disease. (Bul. 205.)
- No. 11. Causes of death by occupation. (Bul. 207.) [In press.]
- No. 12. Hygiene of the printing trades. (Bul. 209.) [In press.]

Conciliation and Arbitration (including strikes and lockouts).

- No. 1. Conciliation and arbitration in the building trades of Greater New York. (Bul. 124.)
- No. 2. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. (Bul. 133.)
- No. 3. Michigan copper district strike. (Bul. 139.)
- No. 4. Industrial court of the cloak, suit, and skirt industry of New York City. (Bul. 144.)
- No. 5. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. (Bul. 145.)
- No. 6. Collective bargaining in the anthracite coal industry. (Bul. 191.)
- No. 7. Collective agreements in the men's clothing industry. (Bul. 198.)

Labor Laws of the United States (including decisions of courts relating to labor).

- No. 1. Labor legislation of 1912. (Bul. 111.)
- No. 2. Decisions of courts and opinions affecting labor, 1912. (Bul. 112.)
- No. 3. Labor laws of the United States, with decisions of courts relating thereto. (Bul. 148.)
- No. 4. Decisions of courts and opinions affecting labor, 1913. (Bul. 152.)
- No. 5. Labor legislation of 1914. (Bul. 166.)
- No. 6. Decisions of courts affecting labor, 1914. (Bul. 169.)
- No. 7. Labor legislation of 1915. (Bul. 186.)
- No. 8. Decisions of courts affecting labor, 1915. (Bul. 189.)
- No. 9. Labor laws and their administration in the Pacific States. (Bul. 211.)
- No. 10. Labor legislation of 1916. (Bul. 213.) [In press.]

Foreign Labor Laws.

- No. 1. Administration of labor laws and factory inspection in European countries. (Bul. 142.)

Vocational Education.

- No. 1. Vocational education survey of Minneapolis. (Bul. 199.)

For material relating to this subject, but not included in this series, see Wages and hours of labor series, No. 9 (Bul. 147); Conciliation and arbitration series, No. 5 (Bul. 145); Miscellaneous series, Nos. 6, 7 (Buls. 159, 162).

Miscellaneous Series.

- No. 1. Statistics of unemployment and the work of employment offices in United States. (Bul. 109.)
- No. 2. Prohibition of nightwork of young persons. (Bul. 117.)
- No. 3. Ten-hour maximum working day for women and young persons. (Bul. 118.)
- No. 4. Employers' welfare work. (Bul. 123.)
- No. 5. Government aid to home owning and housing of working people in foreign countries. (Bul. 158.)
- No. 6. Short-unit courses for wage earners, and a factory school experiment. (Bul. 159.)
- No. 7. Vocational education survey of Richmond, Va. (Bul. 162.)
- No. 8. Minimum-wage legislation in the United States and foreign countries. (Bul. 167.)
- No. 9. Foreign food prices as affected by the war. (Bul. 170.)
- No. 10. Unemployment in New York City, N. Y. (Bul. 172.)
- No. 11. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915. (Bul. 174.)
- No. 12. Regularity of employment in the women's ready-to-wear garment industries. (Bul. 183.)
- No. 13. Profit sharing in the United States. (Bul. 208.)

